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**Disciplines**
Accounting | International Business

# Adopting a Label:
# Heterogeneity in the Economic Consequences of IFRS Adoptions[*]

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**Abstract**

This paper examines the economic consequences of voluntary IFRS adoptions around the world. In contrast to prior work, we focus on the heterogeneity in the consequences, recognizing that firms have considerable discretion in how they adopt IFRS. Some firms may simply adopt a label, while others view the decision as a serious commitment to transparency. We hypothesize that the economic consequences depend on the extent to which IFRS adoptions represent a serious commitment to transparency. Our results support this prediction. We classify firms into "label" and "serious" adopters and analyze whether capital markets respond to differences in adoption quality, using proxies for market liquidity and the cost of capital. We find that the *average* effects of voluntary IFRS reporting on these proxies are generally modest, especially when compared to other forms of commitment such as cross-listing in the U.S. However, consistent with our predictions, we find that "serious" adopters experience significantly stronger effects on the cost of capital and market liquidity than label adopters.

*JEL classification:* G14, G15, G30, K22, M41, M42

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## *1. Introduction*

Over the last number of years the adoption of International Financial Reporting Standards (IFRS) has gained considerable momentum around the world.[1] Almost 100 countries have either moved to IFRS for financial reporting purposes or decided to adopt them at some point in the near future (www.iasplus.com). But even before IFRS became mandatory, many firms around the world have voluntarily adopted or switched to IFRS. In this paper, we examine the economic consequences of these voluntary IFRS adoptions as they are likely to offer important insights into the effects of the upcoming reporting regime changes in many countries.

There are several studies analyzing the effects of voluntary IFRS adoptions prior to our work (e.g., Leuz and Verrecchia, 2000; Barth et al., 2005; Cuijpers and Buijink, 2005; Daske, 2006).[2] These studies typically focus on the *average* IFRS effect with respect to some outcome variable (e.g., earnings quality, liquidity, cost of capital), and the results are often mixed. However, there is little research on the cross-sectional differences in the adoption effects and the reasons for this heterogeneity. Moreover, most studies characterize the observed effects as being attributable to IFRS adoption per se, neglecting the underlying forces driving the adoption decision. Analyzing the cross-sectional variation in the adoption effects is informative in this regard and allows us to shed light on the question of whether the observed capital market effects likely stem from IFRS reporting per se.

Our main prediction is that the economic consequences of IFRS adoptions exhibit considerable heterogeneity resulting from differences in the extent to which firms make

[1] International Accounting Standards (IAS) were renamed to IFRS in 2001. In this paper, we use IAS and IFRS interchangeably but we do not presume that earlier IAS and later IFRS adoptions necessarily have the same consequences. In principle, our tests are equipped to capture differences between these adoptions.

[2] We review this literature in more detail in Section 2.

substantial changes to their reporting and disclosure policies. IFRS, like any other set of accounting standards, offers firms substantial discretion in applying the standards. Moreover, firms' reporting incentives are different and the strength of enforcement differs considerably across countries (e.g., Ball et al., 2003; Leuz et al., 2003; Ball et al., 2005; Lang et al., 2006; Burgstahler et al., 2006). For these reasons, one frequently voiced concern is that some firms may adopt IFRS merely as a label without making material changes in their reporting policies (e.g., Ball, 2001, 2006). Other firms may adopt IFRS as part of a serious commitment to increase transparency. Our study is designed to examine these differences. Provided that market participants can differentiate between "label" and "serious" adopters, we should observe differential market reactions and economic consequences. IFRS adoptions that are part of a serious commitment to transparency are likely to reduce information asymmetry, uncertainty and estimation risk, and hence should be rewarded with a lower cost of capital and higher market liquidity (e.g., Leuz and Verrecchia, 2000; Lambert et al., 2007a).

To examine these hypotheses, we analyze a large panel of IFRS (and IAS) adoptions from 1988 to 2004 across 24 countries. The sample is drawn from the universe of active and inactive firms on Worldscope. We identify IFRS adoptions based on the classifications in Worldscope, Global Vantage, and an extensive hand-collection of firms' annual reports.[3] After combining and cross-checking these sources, we provide descriptive evidence on the frequency of IFRS adoptions as well as adoption trends around the world. As expected, the number of firms reporting under IFRS is steadily increasing over the years. There is also substantial cross-sectional variation in the frequency of voluntary adoptions across countries, which is important to

[3] In Appendix A, we provide a comparison of the three classifications.

consider when analyzing the effects of recent regime shifts towards mandatory IFRS reporting in several countries.

As a first step, we analyze whether IFRS firms exhibit a lower cost of capital and higher market liquidity relative to local GAAP firms and to themselves prior to the adoption of IFRS. We use the implied cost of capital, the percentage bid-ask spread, and a measure of stock illiquidity suggested by Amihud (2002). Based on these variables, we find little evidence that IFRS reporting is *on average* associated with a lower cost of capital or higher market liquidity, after controlling for firm characteristics, "New Market" listings, U.S. cross-listings, index membership, and industry-, country-, and year-fixed effects. We obtain similar results for voluntary U.S. GAAP adoptions that are not due to U.S. cross-listings. In contrast, cross-listings in the U.S. are associated with a lower cost of capital and higher stock liquidity, suggesting that measurement error in our dependent variables and lack of power are unlikely to be responsible for our findings.

As the second and main step, we analyze the heterogeneity in the economic consequences across firms. Towards this end, we construct four measures to capture the seriousness or quality of IFRS adoptions. Our first measure is based on the idea that IFRS reporting and a serious commitment to more transparency should increase the quantity of disclosures that firms make in their annual reports. We therefore analyze the length of firms' annual reports around the adoption of IFRS and classify firms into serious and label adopters based on the change in page numbers of the annual report around the adoption year. Although this measure is admittedly crude and likely to be noisy, it allows us to classify a large set of firms in an objective fashion. Our second measure relies on two survey reports by Cairns (1999, 2000). In these surveys, Cairns analyzes the annual reports of 290 firms with respect to their adoption approach (e.g., full adoption, dual

reporting, some reference to IAS) as well as their compliance with IAS. We use the compliance score to differentiate between serious and label adopters. Our third proxy uses changes in the quality of reported earnings as a way to differentiate between serious and label adopters. Following Leuz et al. (2003), we rely on the magnitude of accruals relative to the cash flow from operations as a simple characterization of earnings quality and use changes in this metric around IFRS adoptions to classify firms. Our fourth and final measure is built on the idea that the quality of IFRS adoptions likely depends on firms' reporting incentives. We characterize firms' reporting incentives using a factor analysis of firm size, profitability, foreign sales, financing needs, growth opportunities, and ownership concentration. Specifically, we expect firms that are larger, more profitable, more international, have larger financing needs, larger growth opportunities, and more dispersed ownership structures to have stronger incentives for transparent financial reporting. We extract a factor that has consistent loadings for all these variables and use the distribution of factor scores to split firms into serious and label adopters.[4]

Using these four partitioning variables, we provide evidence indicating that *serious* IFRS adopters experience larger declines in the cost of capital and larger increases in market liquidity. Specifically, serious IFRS adopters exhibit a decrease in the cost of capital between 45 and 160 basis points relative to the label adopters. The results are very similar across all four serious/label partitions and significant in three cases. For the liquidity measures, we find that serious adopters experience a larger decrease in the bid-ask spreads than label adopters for all partitions. The differences are significant, except for the page number partition where they are close to conventional significance levels. We also find that serious adopters experience a larger decline in

[4] It is important to note that the construction of this split variable allows for the possibility that firms with strong reporting incentives already provide high-quality reports under local GAAP. Thus, it does not require that there is a change in reporting incentives (or reporting quality) around IFRS adoption.

the Amihud illiquidity measure. The effects are significant for two of the partitions and point in the same direction for the others. Thus, our findings are consistent across all metrics.

Finally, comparing IFRS and local GAAP firms, we find evidence that the effect of serious adoptions is generally negative for the cost of capital and positive for market liquidity, consistent with the notion that a commitment to transparency lowers the cost of capital and increases market liquidity. However, consistent with our argument that the commitment value of IFRS reporting itself is low, the net effects are small and often statistically insignificant. For the cost of capital, only the reporting incentives partition exhibits a significantly negative effect for serious adopters (roughly 55 basis points). For the liquidity measures, the results are stronger, but still modest.

Our paper makes several contributions to the literature. First, to our knowledge, this is the first study to analyze the heterogeneity in the economic consequences of IFRS adoptions for a large sample of firms around the world. By documenting that the effects differ with firms' reporting incentives and the extent to which firms make serious changes to their reporting strategies, we show that one has to exercise caution in attributing the effects (and prior findings) to IFRS reporting per se. Second, our study suggests that markets can differentiate between firms' adoption strategies. This result is important as there is considerable concern that the global trend towards a single set of accounting standards masks the heterogeneity in actual reporting practices and hence makes it harder for investors to evaluate firms' reporting quality (e.g., Ball, 2006). Third, our study uses a considerable amount of hand-collection to cross-check and complement readily available classifications of firms' accounting standards. Our comparisons highlight that the classifications in Worldscope and Global Vantage are problematic for a variety of reasons and have to be used cautiously.

The remainder of the paper is organized as follows. Section 2 develops our hypotheses and reviews the literature. Section 3 delineates our research design and describes the data. Section 4 presents our analyses and results. Section 5 concludes. The Appendix provides a comparison of accounting standards classifications and describes the construction of our implied cost of capital measures.

## *2. Conceptual Underpinnings and Literature Review*

### *2.1 Hypothesis Development*

The starting point of our study is the hypothesis that there likely is predictable heterogeneity in the economic consequences of IFRS adoptions and that this heterogeneity can be explained in part by differences in firms' reporting incentives and by the extent to which firms make substantial changes to their reporting and disclosure policies. Some firms may adopt IFRS merely as a label without making material changes, whereas other firms may adopt IFRS as part of a broader strategy that credibly commits them to more transparency.

The conceptual underpinnings of these hypotheses are recent studies highlighting the importance of firms' reporting incentives, rather than accounting standards, as key drivers of observed accounting properties and actual practices.[5] This literature calls into question the extent to which the adoption of IFRS alone can provide a credible commitment to transparency. IFRS like any other set of accounting standards affords firms with substantial discretion as the application of accounting standards involves judgment and the underlying measurements are often based on private information. The way in which firms use this discretion is likely to depend on their reporting incentives, which are shaped by many factors, including countries' institutional

[5] The literature on the role of reporting incentives versus standards is rapidly growing. Examples are Ball et al. (2000, 2003), Leuz (2003), Ball and Shivakumar (2005), Lang et al. (2006), and Burgstahler et al. (2006).

frameworks, various market forces and firm characteristics.[6] As a result, it is not clear that the adoption of IFRS itself materially shapes firms' reporting behavior. It is important to note that this is not just an enforcement issue. Even with perfect enforcement, observed reporting behavior will differ as long as the accounting standards offer some discretion (which they generally do for a good reason) and firms' reporting incentives are different (Leuz, 2006).

These arguments cast doubt on whether we can attribute changes in reporting quality and associated capital-market effects around IFRS adoptions to IFRS itself. Rather than the standards, the effects may reflect the differences in the incentives for credible reporting and the circumstances that led to the adoption of IFRS in the first place. The reporting incentives view also implies predictable cross-sectional variation in the economic consequences of IFRS adoptions. For instance, we expect that firms with strong reporting incentives are more likely to adopt IFRS in ways that entail material changes to their reporting policies and that firms with weak reporting incentives are more likely to adopt IFRS as a label. Some firms may also adopt IFRS as part of a broader strategy that credibly commits a firm to more transparency. For instance, along with IFRS adoption, a firm may hire a higher quality auditor, improve corporate governance, change its ownership structure, or seek a cross-listing in stricter regimes. To the extent that the overall strategy is difficult to mimic (or more costly) for firms that are not serious about transparency, it constitutes a credible commitment.[7] In this case, markets likely react favorably, e.g., by lowering the cost of capital, but the reaction reflects the entire commitment strategy, and IFRS adoption is only a proxy for this strategy (e.g., Leuz and Verrecchia, 2000).

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[6] This insight is also at the heart of the accounting choice and earnings management literature. See Watts and Zimmerman (1986), Healy and Wahlen (1999), and Dechow and Skinner (2000).

[7] This argument is similar to the bonding hypothesis for U.S. cross-listings (e.g., Coffee, 1999; Stulz, 1999). The bonding hypothesis also presumes that cross-listing in the U.S. is more attractive for firms with large financing needs and growth opportunities, and that it entails higher costs for firms where insiders consume large private control benefits and engage in expropriating outside investors (Doidge et al., 2004).

In sum, we expect markets to react more favorably to IFRS adoptions where firms make material and credible changes to their reporting and disclosure policies than to cases where firms merely adopt a label.[8] An alternative hypothesis is that IFRS adoption leads to relatively homogenous reporting quality across firms and hence that the heterogeneity in the economic consequences stems from prior differences in reporting quality, rather than from the quality of IFRS adoption. This hypothesis predicts different cross-sectional effects: firms with lower reporting quality prior to the switch experience more positive effects (holding all else equal) because they experience a larger improvement in reporting quality by switching to IFRS. In contrast, the reporting incentives view suggests that there are reasons why these firms have lower reporting quality in the first place and that these reasons make them more likely to engage in label adoptions, suggesting smaller or less positive effects.

Our main hypothesis for the observed heterogeneity presupposes that markets can discern between serious and label adoptions, at least imperfectly. One concern is that discretion in reporting standards and lack of enforcement make it difficult and very costly for investors to figure out the extent to which firms are serious about their IFRS adoption. Along these lines, Ball (2006) argues that IFRS adoption is almost costless for countries and that it may be even less costly for countries with lower-quality institutions, both of which likely makes IFRS adoption uninformative about reporting quality. Thus, it is also possible that the market does not respond to IFRS adoptions or that the reaction is fairly similar across firms.

[8] We note that it is also possible that there is no market reaction when a firm with strong reporting incentives adopts IFRS. A serious adopter may have been as committed before the switch to IFRS and may have provided essentially the same information in its local GAAP report. This possibility biases our changes analyses towards zero and hence against our hypothesis. Our levels tests (using the Cairns survey reports and the reporting incentives partitions) explicitly allow for this possibility. See Section 3.1.

To test these hypotheses, we examine economic consequences of IFRS adoptions as a function of observable characteristics of firms' reporting policies (and changes therein). It is important to note that this approach does not attempt to identify the marginal effect of IFRS adoption. To the contrary, the point of our study is to highlight that the estimated coefficient on an IFRS indicator variable cannot be simply attributed to IFRS reporting per se and that it likely reflects differences in factors that determine the extent to which firms are serious about their commitment to transparency.

We also realize that our inferences are limited if we find that observable characteristics do not explain cross-sectional variation in the economic consequences. In this case, we do not know whether the characteristics do not explain meaningful variation in firms' reporting policies or whether investors simply cannot (or do not) differentiate between serious and label adopters.

A final conceptual issue is the expected market reaction to label adoptions if markets can discern between serious and label adoptions. One reasonable prediction is that the effect is essentially zero or negligible. Alternatively, the market reaction could be adverse, reflecting that a label adoption reveals to investors that the firm is unwilling to commit more seriously to transparency. Moreover, label adoptions may increase investor uncertainty, e.g., because the lack of a long earnings history makes it harder to forecast future earnings under the new accounting regime. But if markets can unravel label adoptions and react unfavorably, why do firms adopt IFRS in the first place? One potential explanation is prior evidence that managers sometimes engage in seemingly strategic reporting behavior, despite the fact that markets unravel their accounting choices and price them accordingly (e.g., Watts and Zimmerman, 1986; Schrand and Walther, 2000). Allowing for this possibility, we do not sign our expectation for the effects of label adoptions relative to local GAAP firms.

### *2.2 Related Studies*

Despite the large and increasing number of international reporting studies, there is not much research that exploits or analyzes heterogeneity in the economic consequences of IFRS adoptions. Prior empirical studies on the economic effects of voluntary IFRS adoptions can be broadly classified into (1) studies that examine the quality of IFRS financial statements relative to other GAAP financial statements (including U.S. GAAP) as well as firms' compliance with IFRS, (2) studies that analyze the average capital-market effects of IFRS adoptions, primarily in terms of market liquidity and cost of capital, and (3) studies that examine other effects of IFRS adoptions, e.g., on analyst forecasts and mutual fund holdings.[9] Our study is closest to the second stream of research, but it also relates to the empirical findings in the other categories.

In the first category, Harris and Muller (1999), Ashbaugh and Olsson (2002), Eccher and Healy (2000), Bartov et al. (2005), Hung and Subramanyam (2007) analyze the value relevance of IAS accounting numbers relative to local GAAP and/or U.S. GAAP numbers and generally find mixed evidence relative to either benchmark. Barth et al. (2005 and 2006) compute a broad set of earnings quality metrics for firms using IAS and compare them to those for firms using local GAAP and U.S. GAAP, respectively. The evidence suggests that IAS reports are of higher quality than local GAAP reports but of lower quality than U.S. GAAP numbers. Using a set of German firms only, Van Tendeloo and Vanstraelen (2005) and Goncharov and Zimmermann (2006) find little evidence that IAS curb the level of earnings management relative to German GAAP, whereas the evidence in Gassen and Sellhorn (2006) suggests that IFRS numbers are of higher quality. Daske and Gebhardt (2006) use annual report quality scores assigned by

[9] In addition, there are studies providing evidence on the determinants of voluntary IFRS adoptions (e.g., Leuz and Verrecchia, 2000; Ashbaugh, 2001; Tarca, 2004; Cuijpers and Buijink, 2005; Renders and Gaeremynck, 2005) as well as studies examining the determinants and effects of mandatory IFRS adoption in certain countries (e.g., Comprix et al., 2003; Armstrong et al., 2006; Hope et al., 2006).

accounting experts to assess changes in reporting quality and find that IFRS reporting is associated with higher perceived quality as reflected in higher quality scores.

A related set of studies examines how firms comply with IFRS. Using IASC's list of IAS adopters, Cairns (1999, 2000) examines firms' adoption approaches (e.g., full adoption, dual reporting, and reconciliations) and their compliance with IAS. In a similar fashion, Street and Bryant (2000), Glaum and Street (2003), and Gebhardt and Heilmann (2004) use disclosure checklists to determine the level of compliance of IAS firms relative to other sets of firms. All these studies document substantial non-compliance with IAS, but they are based on fairly small samples and do not examine the capital-market effects of non-compliance.[10]

Studies in the second category focus on the capital-market effects of IFRS adoptions.[11] Leuz and Verrecchia (2000) examine information asymmetry and market liquidity proxies for German firms adopting IAS and U.S. GAAP. They find that IAS and U.S. GAAP firms exhibit lower bid-ask spreads and higher turnover than German GAAP firms as well as a decrease in spreads and turnover around IAS or U.S. GAAP adoption. Examining firms in Germany's New Market, Leuz (2003) finds that the differences in spreads, turnover, and IPO underpricing are statistically and economically insignificant across IAS and U.S. GAAP firms, suggesting that both sets of firms are characterized by similar information asymmetries.

More recent studies focus on the cost of capital effects of IFRS reporting and produce mixed evidence. Barth et al. (2005) document a decrease in the cost of capital around IFRS adoption

[10] Using a larger sample of non-U.S. firms around the world, Bradshaw and Miller (2005) also find substantial non-compliance among firms that have voluntarily adopted U.S. GAAP.

[11] In addition to the long-window studies reviewed below, there are a few short-window studies analyzing announcement returns to IFRS adoptions (e.g., Karamanou and Nishiotis, 2005). However, these market reactions also capture news effects that are potentially associated with the adoption of IFRS. For instance, the market may infer new growth opportunities from the announcement to adopt IFRS. Thus, this research design is less suited to isolate the effects of IFRS reporting.

using expected returns from the Fama-French three-factor model. Using implied cost of capital estimates, Cuijpers and Buijink (2005) do not find significant differences across local GAAP and IFRS firms in the EU. Daske (2006) presents evidence that German IFRS firms have a higher cost of equity capital than local GAAP firms.

The third category comprises a small set of studies examining other effects of IFRS adoptions. They do not use capital-market reactions but instead focus on the behavior of financial statement users. Using a small sample of IAS adoptions before 1993, Ashbaugh and Pincus (2001) present evidence suggesting that analysts' forecast accuracy improves after IAS adoption. Cuijpers and Buijink (2005) find an increase in analyst following around IFRS, but the effect is not robust to controls for self selection. Covrig et al. (2007) document that foreign mutual fund ownership is significantly higher for IFRS adopters compared to local GAAP firms and that the difference in mutual fund holdings increases for firms in poor information environments and with low visibility, suggesting that IFRS reporting can help firms attract foreign institutional investment.

In sum, there are a number of studies suggesting that firms reporting under IFRS enjoy substantial benefits. The evidence, however, is far from conclusive and in many cases mixed. Further, it is not clear that the documented benefits can be attributed to the adoption of IFRS, i.e., to the standards themselves. For instance, the benefits could stem from broader commitments to more transparency by some firms. Moreover, the studies generally focus on the *average* effects of IFRS adoption and do not examine the cross-sectional differences in adoption quality and compliance. Heterogeneity across IFRS adoptions could be one reason for the mixed results in prior studies. To address this void, our study focuses on cross-sectional differences in the adoption effects and the drivers of this heterogeneity in the economic effects.

## *3. Research Design and Data*

The main objective of this study is to investigate the heterogeneity in the economic consequences of IFRS adoptions. Towards this goal, we need a variable indicating whether firms use IFRS or local GAAP as well as a classification capturing differences in adoption strategies, i.e., the degree to which firms make material changes to their reporting policies or the extent to which they are committed to transparency. We also need proxies for the economic consequences and a set of control variables. We combine these ingredients in the following model:

$$EconCon = \beta_0 + \beta_1 IFRS + \beta_2 Serious\ IFRS\ Adopters + \sum \beta_j Controls_j + \varepsilon \quad (1)$$

where *EconCon* stands for three different proxies for the economic consequences (i.e., cost of capital, bid-ask spreads, and illiquidity), *IFRS* is a binary variable coded as '1' if the firm uses IFRS in a given year and '0' otherwise, *Serious IFRS Adopters* denotes four binary classifications used to identify serious and label adopters, and $Controls_j$ denotes a set of control variables. To estimate this model, we obtain financial data from Worldscope, return, bid-ask spreads and trading volume data from Datastream, and analyst forecasts and share price data for cost of capital estimation from I/B/E/S. The sample consists of all Worldscope firms from 1988 to 2004 for which we have the necessary data to compute the variables described in more detail below.[12]

### *3.1 IFRS Classifications*

Coding IFRS reporting is not a trivial exercise as firms have chosen many different adoption strategies, particularly in the early days of IAS. As described in more detail in Appendix A, we deliberately use a broad and relatively basic classification in order to capture a wide variety of adoption policies and, in particular, to include firms that merely create the appearance of IFRS

[12] We exclude observations in 2005 because we study voluntary IFRS adoptions and, starting in 2005, IFRS reporting became mandated in many countries (e.g., in all member countries of the European Union).

reporting. Furthermore, we combine and triangulate multiple sources to identify as many IFRS adopters as possible and to improve the accuracy of the reporting classification.

We begin the coding procedure with information from the "Accounting Standards Followed" field in Worldscope as it offers by far the largest sample. We use a binary variable and code firm-year observations as IFRS equal to one if Worldscope indicates that the financials are based on "International Standards", "IFRS", or "IASC guidelines." Appendix A describes this process in more detail and also shows that the Worldscope classification has shortcomings, i.e., does not always properly identify firms that claim to follow IFRS. For this reason, we attempt to manually verify the coding of each firm-year observation, for which either Worldscope or Global Vantage indicate IFRS reporting, using firms' annual reports. Towards this end, we download electronic copies of the annual reports from Thomson Research, read the relevant parts in the annual report (e.g., accounting principles' footnote and auditors' report), and create a hand-coded classification. In total, we are able to obtain and code 22,213 annual reports. We use this extensive hand-coded classification together with the accounting standard information in Global Vantage to triangulate and correct the initial coding based on Worldscope. This procedure gives rise to an "augmented" Worldscope IFRS classification.[13]

Table 1 presents the distribution of IFRS and local GAAP firms in the sample by country (Panel A) and by year (Panel B). The total sample consists of 73,575 firm-year observations across 24 countries, of which 5,306 are coded as IFRS. The countries with the highest adoption rates are Hungary, Switzerland, and Italy. Germany has the largest number of IFRS firm-year

[13] As Appendix A illustrates, there is a substantial number of cases where the annual report and the Worldscope (or Global Vantage) coding do not coincide. In section 4, we report sensitivity tests that use the original Worldscope classification, the classification provided by Global Vantage, and the hand-coded classification based on the sub-sample for which we are able to download and check annual reports.

observations followed by Switzerland and China. As expected, the number and the percentage of firms reporting under IFRS increases considerably over the sample period. By 2004, almost 10% of the sample firms have adopted some form of IFRS reporting. Similarly, the number of U.S. GAAP firms, which we identify via the same procedure as the IFRS firms, increases over time, but the total number remains relatively small.

Next, we use four criteria to separate IFRS firms into serious and label adopters. These binary partitions are the key research design innovation of our paper. They describe either changes or cross-sectional differences in firms' reporting behavior or incentives around IFRS adoptions. We use alternative (and very different) partitions because each of them has its advantages and shortcomings. However, finding similar results across partitions should increase the confidence in the results and in our inferences.

Our first partition is based on the idea that IFRS reporting and a serious commitment to transparency should increase the quantity of disclosures that firms make in their annual reports. We obtain the number of pages of firms' annual reports from Thomson Research, either by downloading the annual report or by pulling the page numbers from the website that lists all available annual reports for a given firm. A firm may provide more than one version of its annual report in a given year (e.g., abridged versions or one report in its local language and a second report in English). We attempt to download and use the page numbers of the English version. If an English version is not available, we collect the page numbers of the local-language report. In case Thomson Research lists more than one annual report for a given firm and year, we calculate the mean number of pages over all annual reports posted for that year.[14] We define a firm as a

[14] As a robustness check, we also use the minimum and the maximum page numbers in a given year, resulting in very similar partitions.

serious IFRS adopter if it exhibits a sustained increase in the page numbers around the IFRS adoption year. That is, we compute the mean page number for the adoption year and the two years thereafter (years t, t+1, and t+2) and compare this number to the mean number of pages in the two years before the adoption (years t-1 and t-2). If the mean number of pages post-adoption is larger than the mean number of pages pre-adoption, we code this firm as serious.

Our second partition of serious and label adopters is based on the "International Accounting Standards Surveys" published in 1999 and 2000 by David Cairns, a former Secretary-General of the IASC and leading authority in international accounting. In his two surveys, Cairns examines firms' annual reports and classifies their approaches to IAS adoption. In addition, he assesses the extent to which firms comply with IAS using eleven categories ranging from (1) "full IAS compliance" (top category) to (11) "unqualified descriptions of differences from IAS treatments" (lowest category). We classify a firm as a serious adopter if it belongs to the first two compliance categories (i.e., "full IAS compliance", "full IAS compliance with exceptions specified in the accounting policies") and as label adopter if the firm is in lower compliance categories.

Our third classification is based on a change in firms' earnings quality around IFRS adoption. We rely on a simple characterization suggested by Leuz et al. (2003), i.e., the magnitude of accruals relative to the cash flow from operations, which is widely available and can be computed in changes. Sloan (1996), Bradshaw et al. (2001) and Richardson et al. (2002) show that the decomposition of earnings into accruals and operating cash flow as well as extreme accruals contain important information (e.g., with respect to future restatements and SEC enforcement actions). Furthermore, the magnitude of accruals to the cash flow from operations produces plausible earnings management rankings for firms around the world (Leuz et al., 2003; Wysocki, 2004). Based on this prior work, we expect firms that make serious changes to their reporting

policies around the adoption of IFRS to exhibit a decrease in the magnitude of extreme accruals, especially relative to label adopters.[15]

Following Leuz et al. (2003), we compute the ratio of the absolute value of accruals to the absolute value of cash flows, which captures extreme accruals. Scaling by the operating cash flow serves as a performance adjustment, which is important in identifying earnings management because firms with more extreme performance tend to have more extreme accruals absent any earnings management (Kothari et al., 2005). If Worldscope provides cash flow information, we estimate accruals as the difference between net income before extraordinary items and the cash flow from operations (roughly 55% of the sample). For the remaining firms, we estimate accruals using the indirect method as in Dechow et al. (1995), where cash flow is computed as the difference between net income before extraordinary items and working capital accruals plus depreciation. To obtain firm-level measures, we compute a rolling mean over the past 4 years (see also Leuz, 2006). We then compare the mean ratio one year before IFRS adoption with the mean ratio three years after the adoption (to ensure that the measure is computed using only post-adoption years). Finally, we classify a firm as a serious IFRS adopter if it exhibits a decline in the magnitude of accruals after the adoption of IFRS (coded as '1').

Our fourth partition is built on the idea that firms' reporting incentives largely determine the quality of reported numbers, rather than the standards themselves (e.g., Ball et al., 2003; Leuz, 2003; Ball and Shivakumar, 2005; Burgstahler et al., 2006). Based on this logic, firms with strong reporting incentives are more likely to adopt IFRS in a way that entails material changes to their reporting policies whereas firms with weak reporting incentives are more likely to adopt

[15] We realize that the change in accounting standards likely has a mechanical effect on the magnitude of accruals. However, as IFRS tends to be more accruals-based than local standards around the world (e.g., Hung, 2001; Ding et al., 2006), this effect likely works against our expectations.

IFRS as a label. Relying on economic theory and accounting research over the past two decades, we posit that firms that are larger, more profitable, more international, have larger financing needs, larger growth opportunities, and more dispersed ownership structures are likely to have stronger incentives to provide accounting reports that are informative to outside investors. We use these observable firm characteristics in a factor analysis to create a summary proxy for firms' reporting incentives. Specifically, we estimate the first principal factor using firm size (measured as the natural logarithm of the market value in US$), financial leverage (measured as the ratio of total liabilities to total assets), profitability (measured as return on assets), growth opportunities (measured as the logarithm of Tobin's Q), ownership concentration (measured as the percentage of closely held shares), and the percentage of foreign sales (measured as foreign sales divided by total sales). The factor solution retains four factors. For all variables, except leverage, the first and primary factor exhibits the loadings that are expected for firms' reporting incentives. That is, it is increasing in size, profitability, growth and foreign sales and decreasing in ownership concentration; the factor loading for leverage is close to zero. We extract the factor score for each firm-year observation and then compute a time-series average by firm. We classify a firm as serious adopter (coded as '1') if the factor score is above the median factor score for all IFRS adopters and as label adopter otherwise.

It is important to note that the construction of this partition (as well as the Cairns partition) is built on cross-sectional differences in firms' reporting incentives. It explicitly allows for the possibility that a firm with strong reporting incentives provides high-quality reports under local GAAP and IFRS, and does not require a change in reporting incentives around IFRS adoption in order to classify the firm as a serious adopter. In contrast, the partitions based on page numbers or earnings quality changes would classify these no-change firms as label adopters. For this reason, we view our changes and cross-sectional partitions as complementary analyses.

### *3.2 Dependent Variables*

In studying the economic consequences of IFRS adoptions, we use proxies for information asymmetry, market liquidity, and the cost of capital. Increasing the commitment to transparency should reduce information asymmetries between investors and increase market liquidity (e.g., Verrecchia, 2001). Similarly, more precise disclosures should lower estimation risk, which in turn reduces the cost of capital if part of the estimation risk is non-diversifiable (e.g., Barry and Brown, 1985; Coles et al., 1995; Lambert et al., 2007a). In addition, more disclosure can improve risk sharing in the economy and again lower firms' cost of capital (e.g., Merton, 1987; Diamond and Verrecchia, 1991; Lambert et al., 2007b). Thus, proxies for the cost of capital, information asymmetry and market liquidity should reflect, among other things, the quality of disclosures and financial reports. In addition, market-based proxies should capture differences in reporting quality more broadly, including differences in recognition, measurement and footnote disclosures.

As our first proxy, we use the implied cost of equity capital. Following Hail and Leuz (2006a), we compute estimates of the implied cost of capital using four models suggested in the literature (Claus and Thomas, 2001; Gebhardt et al., 2001; Easton, 2004; Ohlson and Juettner-Nauroth, 2005). All four models are consistent with discounted dividend valuation but rely on different earnings-based representations of this model. For each model, we substitute market price and analyst forecasts from I/B/E/S into the valuation equation and back out the cost of capital as the internal rate of return that equates current stock price and the expected future sequence of residual incomes or abnormal earnings. We average over the four models to obtain a

single estimate per firm-year observation. Appendix B describes the models and the cost of capital estimation in more detail.[16]

The second dependent variable is the bid-ask spread, which is a commonly used proxy for information asymmetry (e.g., Welker, 1995; Healy et al., 1999; Leuz and Verrecchia, 2000). We obtain the closing bid and ask prices for each day from Datastream and compute the daily quoted spread as the difference between the two prices divided by the mid-point. To obtain a yearly firm-year observation, we compute the median daily spread over the year.

The third dependent variable is a measure of illiquidity suggested by Amihud (2002), which in turn is inspired by Kyle's (1985) lambda. The proxy is intended to capture the price impact of trades, i.e., the ability of an investor to trade in stock without moving its price.[17] We measure illiquidity as the median daily price impact over the year and follow Amihud (2002) in computing price impact as the daily absolute price change per dollar of trading volume.

All dependent variables are measured as of month +10 after the fiscal year end for which we code the accounting standards. We choose this month to ensure that firms' annual reports are publicly available and priced at the time of our computations (Hail and Leuz, 2006a). For variables that are computed over an entire year, we start the computation as of month -2 through month +10 relative to the firm's fiscal year end.

Table 2, Panel A, presents descriptive statistics for the dependent variables for the sample of IFRS adopters and firms following local GAAP. The mean cost of capital for firms following

[16] We recognize that there is a debate about the empirical validity of implied cost of capital estimates (Botosan and Plumlee, 2005; Easton and Monahan, 2005; Guay et al., 2005; Pastor et al., 2006). One alternative is to use realized returns as a proxy for expected returns. However, this proxy has many drawbacks as well, especially with short time series (Elton, 1999). We therefore go down a different route and use proxies for liquidity and information asymmetry as these constructs also capture differences in reporting quality (Leuz, 2003).

[17] While market liquidity is an important construct in its own right, there is also evidence that illiquidity is priced in expected returns (e.g., Brennan and Subrahmanyam, 1996).

local GAAP is 12.7% compared to a cost of capital of 12.1% for IFRS adopters. Likewise, the mean spread (mean illiquidity) for local GAAP firms is 3.7% (18.75) versus 1.8% (11.30) for IFRS adopters.[18] Taken at face value, these results suggest that IFRS firms have lower cost of capital and higher market liquidity than local GAAP firms. However, these comparisons do not control for differences in firm characteristics and are provided for descriptive purposes only.

### *3.3 Control Variables*

In all regression models, we include industry-, country-, and year-fixed effects. Thus, our specifications control for differences in countries' adoption rates as well as time trends in IFRS adoption. In unreported regressions, we also check that our results are robust when we include country-year-fixed effects to control for country-wide shifts in the adoption rates over time, e.g., due to the announcement of mandatory IFRS reporting. Thus, our IFRS effects are identified via within-country differences relative to local GAAP firms and label adopters, respectively.

In addition, we introduce binary indicator variables to control for firms following U.S. GAAP, having U.S. cross-listings, trading on a "new market", and being a member of a major index. We identify firms with a U.S. cross-listing, i.e., with shares traded over-the-counter or listed on an exchange in the U.S., and code them separately from the voluntary U.S. GAAP firms without cross-listings. We control for "new market" firms if their shares are traded on an exchange specializing in technology and other high-growth stocks *and* with listing requirements that mandate or allow for IFRS reporting, i.e., Bovespa Novo Mercado (Brazil), Expandi market (Italy), Neuer Markt (Germany), Nordic Growth Market (Sweden), and Sesdaq (Singapore).

[18] We note that spread and illiquidity are right-skewed. As it is common in the literature to estimate micro-structure models in a log-linear specification, we use the natural logarithm of these measures, which also addresses the skewness.

Index observations represent firms whose shares are constituents of national or international stock market indices as defined in Worldscope.

For the cost-of-capital specifications, we follow Hail and Leuz (2006b) and control for expected inflation, firm size, financial leverage, return variability, and forecast bias. We control for inflation because analyst forecasts are expressed in nominal terms and local currency, which implies that the resulting cost of capital estimates reflect countries' expected inflation rates. Inflation is measured as the yearly median of country-specific, one-year-ahead realized monthly inflation rates.[19] Size is measured as total assets, leverage is the ratio of total liabilities to total assets, and return variability is the annual standard deviation of monthly stock returns computed from month -2 through month +10 relative to the firm's fiscal year end. Finally, we control for analyst forecast errors for two reasons. First, it is possible that the adoption of IFRS impairs analysts' ability to forecast earnings, at least during a transitional period. Second, any bias in analyst forecasts could mechanically affect our implied cost of capital estimate if markets back out the bias. We compute forecast bias as the one-year-ahead I/B/E/S analyst forecast error (mean forecast minus actual) scaled by lagged total assets.

In the spread and illiquidity regressions, we control for firm size, return variability, and share turnover (Chordia et al., 2000). Firm size is the market value of equity measured as the stock price times the number of shares outstanding (in US$ millions). Return variability is computed as annual standard deviation of monthly stock returns. Share turnover is the accumulated US$ trading volume during the year divided by market value of outstanding equity. Again, we compute return variability and share turnover beginning in month -2 through month +10 relative

[19] Using countries' risk-free rates, rather than the inflation rate, yields very similar results and inferences.

to a firms's fiscal year end, and lag the market variables by one year to mitigate any confounding effects from contemporaneous measurement.

Table 2, Panel B, presents descriptive statistics on the control variables for the sample of IFRS adopters and for firms following local GAAP. Firms adopting IFRS are on average much larger, more financially leveraged, have lower analyst forecast bias, share volatility and turnover.

## *4. Results*

### *4.1 The Average Effects of IFRS Reporting*

We begin our analysis by examining the *average* effect of IFRS adoption on firms' cost of capital and market liquidity. We use cross-sectional, time-series panel regressions, which essentially benchmark IFRS firms against local GAAP firms and against the local GAAP history of IFRS adopters. Estimating the average effects allows us to compare our findings to prior work.

Towards this end, we estimate the empirical specification outlined in equation (1), but without including the serious IFRS adopter variable. In addition, we estimate a model including a dummy variable coded as '1' if the firm adopts IFRS at any point in time. This IFRS firm-fixed effect allows us to control for time-invariant and potentially unobserved differences between voluntary IFRS adopters and local GAAP firms. In this model, the IFRS variable is estimated from firms with reporting changes only. We report results from OLS regressions with robust standard errors that are clustered by firm.

Table 3 presents the average effect of IFRS adoptions on the cost of capital, bid-ask spreads and stock illiquidity. In the first two regressions, the coefficients on the IFRS adoption variable are positive but insignificant, suggesting that IFRS firms do not have a lower cost of capital than local GAAP firms. Comparing this finding to the univariate analysis in Table 2 illustrates the importance of controlling for firm characteristics. It is also in contrast to findings by Barth et al.

(2006) suggesting a decrease in expected returns around IFRS adoptions. The inclusion of an IFRS firm-fixed effect does not change the IFRS coefficient, indicating that the estimated effect is not driven by time-invariant differences across IFRS and local GAAP firms. Consistent with Hail and Leuz (2006b), the coefficients on U.S. listing indicate that being cross-listed in the U.S. significantly lowers firms' cost of capital (by about 50 basis points). There are also significant cost-of-capital differentials for firms on new markets and for firms that are members of a major stock index.[20] All continuous control variables are highly significant and have the expected signs.

The next two columns in Table 3 present the results for the bid-ask spreads. Model 1 suggests that firms reporting under IFRS have significantly higher bid-ask spreads. However, once we include the IFRS firm indicator, this effect disappears and the coefficient becomes negative, suggesting that the positive IFRS coefficient in Model 1 reflects differences between IFRS and local GAAP firms, rather than an adoption effect.[21] However, the decline in the spread is insignificant. Again, the indicators for new market firms and firms with stock index memberships are significant, suggesting that it is important to control for their effects. The coefficients on market value, share turnover, and return variability are all highly significant and exhibit the predicted relations.

The final two columns in Table 3 report the results for share illiquidity. The tenor and pattern of the illiquidity findings are similar to those using spreads. That is, the coefficient on IFRS is significantly positive in Model 1 but loses its significance after we include the IFRS firm

[20] The magnitude of the new market effect, when compared to the effect of cross-listing, is perhaps surprising. One potential explanation for this finding is that the variable indicates high-tech stocks which in retrospect were overpriced for some time of our sample period (relative to the rest of the market). This, in turn, should bias the implied cost of capital estimates downward.

[21] This finding is broadly consistent with Leuz and Verrecchia (2000). They show that it is important to control for selection effects and find a significantly negative effect on spreads after attempting to account for self-selection.

indicator. The findings for all other control variables are very similar to the spread regressions, except for the coefficient on U.S. listing, which now not only has the expected sign but it is also significant.

Overall, the economic consequences of IFRS adoptions are either insignificant or disguised by substantial heterogeneity across firms, in which case examining the average effect is potentially misleading. Regardless, our findings for the average IFRS effect are inconsistent with the notion that IFRS itself and hence for all voluntary adoptions constitutes a commitment to increased disclosure. However, this is not surprising in light of our argument that firms have substantial flexibility in how they adopt IFRS. The findings are also consistent with prior evidence on the role of firms' reporting incentives, suggesting that standard choices themselves are of lesser importance (e.g., Ball et al., 2003; Ball and Shivakumar, 2005; Burgstahler et al., 2006).

### *4.2 Heterogeneity in the Economic Consequences across Serious and Label IFRS Adopters*

In this section, we examine the effects of IFRS adoption on the cost of capital, bid-ask spread, and stock illiquidity across serious and label IFRS adopters. If the market and our four partitioning variables are able to differentiate between serious and label adopters, we expect to find a decrease in the cost of capital, spread, and illiquidity for serious IFRS adopters relative to label adopters. To the extent that serious IFRS adopters commit to more transparency, we also expect them to have a lower cost of capital and higher market liquidity than local GAAP firms. However, this prediction hinges critically on our partitioning variables. That is, the better our partitioning variables capture material changes in firms' reporting strategies or cross-sectional differences in their commitment to transparency, the more likely it is that we see a reduction in the cost of capital and an increase in liquidity. We have no prediction with regard to the difference between label adopters and local GAAP firms. One possibility is that the switch to the

new accounting regime changes only the name of the standards and hence does not result in any capital-market effects. On the other hand, market participants could perceive label adoptions as a negative signal, in which case we could even observe an *increase* in the capital-market proxies.

We start our cross-sectional analyses with univariate comparisons across the two types of IFRS adopters and firms reporting under local GAAP. Next, we present OLS regression results from estimating equation (1) with robust standard errors that are clustered by firm. Table 4 reports median values and numbers of observations for the dependent variables across label and serious IFRS adopters, and local GAAP firms. As Panel A shows, cost of capital for serious IFRS adopters is lowest and, in most cases, statistically different from the other cells for each partitioning variable. Compared to label adopters, differences in the cost of capital range from 10 basis points using the magnitude of accruals partition up to 230 basis points when splitting by the reporting incentives factor. The results of comparing label adopters to local GAAP firms are inconclusive. Panels B and C repeat the analyses for the bid-ask spread and stock illiquidity. IFRS firms exhibit lower spreads and are more liquid than their local GAAP peers. Moreover, the decrease in the bid-ask spread and Amihud's (2002) illiquidity measure is larger for serious IFRS adopters then for label adopters. In all cases, the differences are highly significant. Thus, in sum, the univariate analyses provide a first clue that investors are able to distinguish between different IFRS adopters and that firms that make serious changes to their reporting policies around IFRS adoptions experience larger economic benefits than firms that adopt IFRS as a label. However, as these analyses do not control for other firm characteristics, they should be interpreted cautiously.

Table 5 presents results from multiple regression analyses. Our main variable of interest is the indicator variable for serious IFRS adopters, which we predict to take on a negative sign. This variable measures the differential effect on the outcome variables between serious and label

adopters, after controlling for various firm characteristics as well as industry-, country- and year-fixed effects. The IFRS variable captures the effect on the outcome variables for the label adopters. The two coefficients combined compare serious IFRS adopters to local GAAP firms.

In Panel A, we report the cost of capital results. We find that all four partitions point in the predicted direction and that, in three out of four partitions, serious adopters exhibit a significant decrease in cost of capital relative to label adopters. In two cases, the magnitude of the coefficient on serious IFRS adopters exceeds the IFRS coefficient by a few basis points, consistent with a small cost of capital benefit for serious adopters relative to local GAAP firms. But the effect is only significant using the reporting incentives factor. Further, the IFRS adoption coefficient is always positive and, in three out four partitions, it is statistically significant. This result implies that the positive IFRS coefficients documented in Table 3 stem primarily from firms classified as label adopters, highlighting the substantial heterogeneity in the effects. The coefficients on the control variables are very similar to those presented earlier. Thus, in sum, markets appear to be able to distinguish between label and serious adopters and set the cost of capital accordingly.

Panel B presents the results for bid-ask spreads. The coefficients on serious IFRS adopters are negative for all partitions. Furthermore, they are significant in three cases and close to conventional significance levels for the page numbers partition. These results suggest that serious adopters experience a significant decline in bid-ask spreads relative to label adopters. The effect relative to local GAAP firms is negative in all four cases, but only statistically significant in two cases. For label adopters the results are mixed. The effect is positive in three out of four partitions, but only significant for the reporting incentives factor. For the Cairns report partition, label adopters exhibit even a significant decrease in bid-ask spreads.

In Panel C, we report the results for stock illiquidity. The coefficient on the serious adopter indicator is again always negative and statistically significant in two cases. This finding suggests that serious IFRS adopters experience larger declines in their share illiquidity than label adopters. When compared to firms reporting under local GAAP, the net effect of the serious IFRS adoption is negative in three cases and statistically significant in two. Further, the IFRS adoption variable is significantly positive in the magnitude of accruals and the reporting factor partitions indicating that label adopters may experience higher illiquidity levels after adopting IFRS. For both, spreads and illiquidity, the control variables exhibit associations that are similar to those in Table 3.

In sum, these findings confirm our main hypothesis that there is substantial heterogeneity in the economic consequences of IFRS adoptions and that these differences are in part explained by the degree to which firms make substantial changes to their reporting policies and have strong reporting incentives. This evidence casts doubt on the interpretation of the capital-market effects as stemming from IFRS adoption per se. Finally, the findings suggest that markets can successfully distinguish between different adoption types and they reward firms that commit to more transparency.

### *4.3 Sensitivity Analyses*

In this section, we assess the sensitivity of the above results to two critical research design choices. First, to gauge the effect of sample selection, we estimate the multiple regressions using only firm-year observations from IFRS adopter firms or using a matched-sample approach. In the latter case, we select for each IFRS firm and based on its adoption year (or, if not available, the earliest year it enters our sample) a firm that is ranging closest in market value of equity and is from the same industry and country. Both alternative samples yield results that are very similar to

those reported in the tables, and if anything, the results for serious IFRS adopters become stronger, i.e., the coefficients of interest are even more negative.

Second, we evaluate the sensitivity of our results to the accounting standards classification. As explained above and in Appendix A, we use an augmented Worldscope accounting standards classification that incorporates extensive hand-coding of firms' annual reports. As a robustness check, we re-run our analyses using (1) the original Worldscope classification, (2) the accounting standards classification based on Global Vantage, and (3) the sub-sample of firms for which we are able to classify standards based on firms' annual reports. These analyses allow us to gauge the sensitivity of our findings to the accounting standards classification used.

The original Worldscope classification produces results that are quite similar and consistent with those reported in the tables. Results based on the Global Vantage classification are qualitatively similar, but usually weaker, which appears to be mainly due to the substantial decrease in IFRS observations identified by Global Vantage. Similar issues arise for the hand-coded sample. However, the basic message – serious adopters experience different economic consequences than label adopters – is the same across the three classifications.[22] For instance, the difference between serious and label IFRS adopters in the cost of capital regressions range from -23 to -99 basis points for the Worldscope classification, from -46 to -96 basis points for the Global Vantage classification, and from -11 to -72 basis points for the sample of hand-collected information. We obtain similar inferences when using spreads and the illiquidity variable.

[22] This finding may seem surprising in light of the differences across classifications documented in Appendix A. Note, however, that our label/serious partitions are in principle independent of the accounting standards classification (except for the Cairns partition). Thus, if our partitions work and (appropriately) put local GAAP firms that are misclassified as IFRS into the label category, misclassifications do not necessarily hurt our tests.

Taken together, the results from these robustness tests suggest that serious IFRS adopters have lower costs of capital, lower information asymmetry, and more liquid stocks than label adopters. The results are robust to alternative research designs and are consistent across alternative accounting standards classifications.

## *5. Conclusion*

This paper examines the economic consequences of voluntary IFRS adoptions around the world. In contrast to prior work, we focus on the heterogeneity in the consequences, recognizing that firms have considerable discretion in how they adopt IFRS. Some firms may adopt IFRS merely as a label without making material changes to their reporting policies, while others may view the decision as a serious commitment to transparency. Consistent with this expectation, we document that the economic consequences of IFRS adoptions depend on the extent to which firms make material changes to their reporting policies or have strong reporting incentives.

To illustrate the heterogeneity in the adoption effects, we create four binary partitions that attempt to identify serious and label adopters. The first measure is based on the idea that IFRS adoption as part of a serious commitment to more transparency should increase the quantity of disclosures that firms make in their annual reports. We therefore classify firms based on changes in the page numbers of the annual reports around the adoption of IFRS. The second measure relies on two surveys by Cairns (1999, 2000) that analyze and categorize annual reports of 290 firms in terms of their compliance with IAS. The third proxy is based on a simple characterization of firms' earnings quality, i.e., the magnitude of accruals relative to the cash flow from operations, and compares changes in this metric around IFRS adoptions. The fourth measure is built on the idea that high-quality reporting depends on firms' reporting incentives. Firms with strong reporting incentives are more likely to adopt IFRS in a way that entails material

changes to their reporting policies whereas firms with weak reporting incentives are more likely to adopt IFRS as a label. We characterize firms' reporting incentives using a factor analysis of various firm characteristics.

Our sample consists of a large panel of IFRS adoptions from 1988 to 2004 across 24 countries. This dataset is constructed from Worldscope and by extensive hand-coding of annual reports. To capture the economic consequences of IFRS adoption, we use three different proxies for firms' cost of capital and market liquidity. Our analysis proceeds in two steps. First, we analyze whether IFRS firms on average exhibit a lower cost of capital and higher market liquidity than local GAAP firms. Next, we split the sample of IFRS firms using the four partitions and examine whether the consequences differ across serious and label adopters.

On average, we find little evidence that IFRS adoptions are associated with a significant decline in the cost of capital or an increase in market liquidity, after controlling for known determinants of these measures. This evidence is inconsistent with the notion that IFRS itself and hence for all voluntary adoptions constitutes a commitment to increased disclosure. But it should not be surprising in light of the substantial flexibility that firms have in how they adopt IFRS.

Consistent with this flexibility and our main hypothesis, we find substantial differences in the economic consequences after partitioning the sample into serious and label adopters. Specifically, we find that serious IFRS adopters experience economically and statistically significant declines in the cost of capital and increases in market liquidity relative to label adopters. When compared to firms reporting under local GAAP, we find that the effects are much more modest, implying that markets react adversely to label adoptions.

These findings contribute to the literature by highlighting the heterogeneity in the economic consequences of IFRS adoptions. By documenting that the effects differ with firms' reporting

incentives and the extent to which firms make serious changes to their reporting strategies, we show that one has to exercise caution in attributing the effects (and prior findings) to IFRS reporting per se. In addition, our study shows that markets can differentiate between different adoption strategies. This result is important as there is considerable concern that the global movement towards a single set of accounting standards masks the heterogeneity in actual reporting practices and hence makes it harder for investors to evaluate firms' reporting quality.

*Appendix A: IFRS and Financial Reporting Standards Classifications*

This appendix describes our coding of firm-year observations from firms following IFRS, U.S. GAAP or local GAAP, and compares accounting standards classifications across different data sources. We use three primary data sources to construct our panel of firms' accounting standards: (1) Thomson Financial Worldscope (WS), (2) Compustat Global Vantage (GV), and (3) a comprehensive manual review of firms' annual reports collected through Thomson Research. WS serves as starting point for our coding procedure because its coverage is by far the most comprehensive. In addition, it is directly linked to Datastream thereby reducing the potential for mismatches from combining accounting data with price data. Using the WS information on accounting standards followed (Field 07536), we classify firm-year observations into the three categories IFRS, U.S. GAAP and local GAAP according to Panel A of Table A1. For sensitivity purposes and to assess the quality of commercially available databases, we also classify the same set of observations applying the GV coding scheme in Panel B that is based on the accounting standards information in GV field "ASTD".[23]

To check whether the information contained in WS (and, consequently, GV) meets our purposes (i.e., identification of firms claiming to report under IFRS), we next conduct an extensive manual data collection and classification. In a first step, we identify all potential voluntary IFRS or U.S. GAAP adopters, i.e., firms with at least one firm-year coded as IFRS or U.S. GAAP in either WS or GV before IFRS adoption became mandatory (35,633 firm-years). We then attempt to gather the time-series of annual reports through Thomson Research and were

[23] One of the drawbacks of commercial databases for our study is that they attempt to capture many different reporting practices around the world, but often at the expense of consistency through time or across countries. Furthermore, the categories often do not provide clear distinctions between local GAAP and IFRS, as is needed for our study. For instance, category 02 "International standards" in WS comprises not only IFRS observations, but also firms following other non-local, non-U.S. standards (e.g., H.K. GAAP, U.K. GAAP). This problem is even more pronounced in GV as it has only three categories dedicated to international standards.

able to collect 22,213 documents in electronic image format. Next, based on an extensive manual review of the accounting principles' footnote and the auditors' report, we create our own accounting standards classification (Panel C). The idea behind this classification is to rely on firms' self-proclaimed financial reporting practices. This leads to six IFRS (U.S. GAAP) reporting categories ranging from the exclusive use of IFRS (U.S. GAAP) for consolidated financial statements to reporting under local GAAP together with a reconciliation of net income or shareholders' equity to IFRS (U.S. GAAP). Note that we classify firms as local when they only adopt individual IFRS or U.S. GAAP standards (e.g., for leasing or segment reporting). Finally, we complete firms' time-series by filling in cases with missing individual annual reports utilizing all data sources at hand (i.e. WS, GV, annual reports). This procedure results in a total hand-coded sample of 27,589 firm-year observations.

The main purpose of this massive hand-collection is to assess the suitability of commercially available databases for our research question. To gauge the effect of potential misclassifications, we tabulate firm-years across different classification schemes and report the number of observations and percentages in Table A2. For ease of comparison, we use the base sample from our main analyses (n=73,575).[24] In Panel A we compare the classifications across WS and GV. For our comprehensive coding for IFRS, we find that 3.8% of all firm-year observations are classified as IFRS in WS, but as local GAAP in GV (compared to 1.2% the other way round). Thus, the two data sources provide contradicting information on more than every second IFRS firm-year observation. When we limit the WS coding to categories 02 and 23 and the GV coding to "DI" (labeled "Stricter Coding for IFRS" in Panel A), the contradiction rate drops to about 46%. Note that firm coverage in WS is larger by about one third compared to GV. Panel B

[24] In unreported analyses we confirm that the results of the cross-tabulation is very similar when using the entire hand-coded sample instead (n=27,589).

reports results from comparing the hand-coded classification to WS and GV. Although none of the two commercial databases clearly dominates, the degree of overlap with WS is 12.4% (i.e., the sum of the main diagonal, i.e., 5.1% + 1.2% + 5.1%) of the observations compared to 9.8% (= 3.6% + 0.8% + 5.4%) with GV. In addition, our IFRS hand-coding disagrees in 42% (40%) of the cases with WS (GV). Panel C reports Pearson correlations between the three classifications.

As a further validity check we compare the three coding schemes on a country-by-country basis. In Table A3 we tabulate the numbers and proportions of IFRS and U.S. GAAP adopters for all countries with a minimum of 20 firm-year observations and total assets available. The table again highlights the larger firm coverage in WS, which identifies more than twice as many IFRS observations than GV (13,001 IFRS firm-years versus 6,227). The hand-coded sample consists of 8,399 IFRS firm-year observations. It further reveals that the proportion of IFRS adopters at the individual country-level varies substantially. For instance, the percentage of IFRS adopters in Italy is as high as 78.7% according to WS compared to 0.2% based on GV. The hand-coding, where observations uniformly classified as local under WS *and* GV serve as benchmark, produces a proportion of 25%. Overall, the country-level comparison confirms the existence of substantial inconsistencies across commercially available data providers.

As a result of the above validity checks, we conduct our main analyses using an augmented WS accounting standards classification where our hand-coded data overrides conflicting WS information. This yields 3,183 substitutions. For completeness, we also report results using alternative accounting standards classifications in the sensitivity tests section.[25]

[25] Note that some of our analyses require the identification of an adoption year. We define the IFRS adoption year as the first incidence that satisfies the following criteria: (1) at least two consecutive firm-year observations are available for a particular firm, and (2) the second (but not the first) of those consecutive years must be classified as reporting under IFRS.

## *Appendix B: Implied Cost of Equity Capital Models*

### *B.1 Overview and Model-specific Assumptions*

Claus and Thomas (2001):

$$P_t = bv_t + \sum_{\tau=1}^{T} \frac{\left(\hat{x}_{t+\tau} - r_{CT} \cdot bv_{t+\tau-1}\right)}{\left(1+r_{CT}\right)^{\tau}} + \frac{\left(\hat{x}_{t+T} - r_{CT} \cdot bv_{t+T-1}\right)\left(1+g\right)}{\left(r_{CT}-g\right)\left(1+r_{CT}\right)^{T}}$$

*Model-specific assumptions:*
This is a special case of the residual income valuation model. It uses actual book values per share and forecasted earnings per share up to five years ahead to derive the expected future residual income series. We define residual income as forecasted earnings per share less a cost of capital charge for beginning of fiscal year book value of equity per share. We assume clean surplus, i.e., future book values are imputed from current book values, forecasted earnings and dividends. Dividends are set equal to a constant fraction of forecasted earnings. At time $T = 5$, it is assumed that (nominal) residual income grows at rate $g$ equal to the expected inflation. As a proxy for $g$, we use the (annualized) median of country-specific, one-year-ahead realized monthly inflation rates. Note that $g$ sets a lower bound to the cost of capital estimates.

Gebhardt, Lee, and Swaminathan (2001):

$$P_t = bv_t + \sum_{\tau=1}^{T} \frac{\left(\hat{x}_{t+\tau} - r_{GLS} \cdot bv_{t+\tau-1}\right)}{\left(1+r_{GLS}\right)^{\tau}} + \frac{\left(\hat{x}_{t+T+1} - r_{GLS} \cdot bv_{t+T}\right)}{r_{GLS}\left(1+r_{GLS}\right)^{T}}$$

*Model-specific assumptions:*
This is a special case of the residual income valuation model. It uses actual book values per share and forecasted earnings per share up to three years ahead to impute future expected residual income for an initial three-year period. We assume clean surplus, i.e., future book values are imputed from current book values, forecasted earnings and dividends. Dividends are set equal to a constant fraction of forecasted earnings. After the explicit forecast period of three years, the residual income series is derived by linearly fading the forecasted accounting return on equity to the industry-specific median return. We compute the historic three-year average return on equity in a given country and year based on the industry classification in Campbell (1996). Negative yearly target returns are replaced by country-industry medians. From $T = 12$ on residual income is assumed to remain constant.

Ohlson and Juettner-Nauroth (2005):

$$P_t = \left(\hat{x}_{t+1}/r_{OJ}\right) \cdot \left(g_{st} + r_{OJ} \cdot \hat{d}_{t+1}/\hat{x}_{t+1} - g_{lt}\right) \Big/ \left(r_{OJ} - g_{lt}\right)$$

*Model-specific assumptions:*
This is a special case of the abnormal earnings growth valuation model developed by Ohlson and Juettner-Nauroth (2005). It uses one-year ahead forecasted earnings and dividends per share as well as forecasts of short-term and long-term abnormal earnings growth. Dividends are set equal to a constant fraction of forecasted earnings. Following Gode and Mohanram (2003), the short-term growth rate $g_{st}$ is estimated as the average between the forecasted percentage change in earnings from year $t$+1 to $t$+2 and the five-year growth forecast provided by financial analysts on *I/B/E/S*. The model requires a positive change in forecasted earnings to yield a numerical solution. The long-term earnings growth rate $g_{lt}$ incorporates the assumption that growth in abnormal earnings per share beyond year $t$+1 equals the expected rate of inflation. We use the (annualized) country-specific median of one-year-ahead realized monthly inflation rates. Note that $g_{lt}$ sets a lower bound to the cost of capital estimates.

Modified PEG ratio model by Easton (2004):

$$P_t = \left(\hat{x}_{t+2} + r_{PEG} \cdot \hat{d}_{t+1} - \hat{x}_{t+1}\right) \Big/ r_{PEG}^2$$

*Model-specific assumptions:*
This is a special case of the abnormal earnings growth valuation model developed by Ohlson and Juettner-Nauroth (2005). It uses one-year ahead and two-year ahead earnings per share forecasts as well as expected dividends per share in period $t$+1 to derive a measure of abnormal earnings growth. Dividends are set equal to a constant fraction of forecasted earnings. The model embeds the assumption that growth in abnormal earnings persists in perpetuity after the initial period. Note that it requires positive changes in forecasted earnings (including re-invested dividends) to yield a numerical solution.

Notes:

| | | |
|---|---|---|
| $P_t$ | = | Market price of a firm's stock at date $t$ |
| $bv_t$ | = | Book value per share at the beginning of the fiscal year |
| $bv_{t+\tau}$ | = | Expected future book value per share at date $t+\tau$, where $bv_{t+\tau} = bv_{t+\tau-1} + \hat{x}_{t+\tau} - \hat{d}_{t+\tau}$ |
| $\hat{x}_{t+\tau}$ | = | Expected future earnings per share for period ($t+\tau$–1, $t+\tau$) using either explicit analyst forecasts or future earnings derived from growth forecasts $g$, $g_{st}$, and $g_{lt}$, respectively |
| $\hat{d}_{t+\tau}$ | = | Expected future net dividends per share for period ($t+\tau$–1, $t+\tau$), derived from the dividend payout ratio times the earnings per share forecast $\hat{x}_{t+\tau}$ |
| $g, g_{st}, g_{lt}$ | = | Expected (perpetual, short-term or long-term) future growth rate |
| $r_{CT}, r_{GLS}, r_{OJ}, r_{PEG}$ | = | Implied cost of capital estimates calculated as the internal rate of return solving the above valuation equations, respectively |

### *B.2 General Assumptions and Data Requirements*

This appendix delineates our computation of the implied cost of capital proxy used as a dependent variable in the analyses. For an observation to be included in the cost of capital sample we require current stock price data ($P_t$), analyst earnings per share forecasts for two periods ahead ($\hat{x}_{t+1}$ and $\hat{x}_{t+2}$), and either forecasted earnings per share for period $t$+3 ($\hat{x}_{t+3}$) or an estimate of long-term earnings growth (*ltg*). We obtain this information from the *I/B/E/S* database. If explicit earnings per share forecasts for the periods $t$+3 through $t$+5 are missing, we apply the following relation: $\hat{x}_{t+\tau} = \hat{x}_{t+\tau-1} \cdot (1 + ltg)$. Alternatively, if long-term growth projections are missing, we impute *ltg* from the percentage change in forecasted earnings per share between periods $t$+2 and $t$+3. In our main tests, we use only positive earnings forecasts and growth rates. All estimates are mean analyst consensus forecasts.

Stock prices and analyst forecasts are measured as of month +10 after the fiscal year end (*I/B/E/S* provides updates as of the third Thursday of each month). This time lag is chosen to ensure that financial data, especially earnings and book values of equity, are publicly available and impounded in prices at the time we compute the cost of capital estimate. However, this implies that the one-year ahead forecast ($\hat{x}_{t+1}$) is for a fiscal year that ends just two months later.

Furthermore, the pricing date ($P_{t'}$, where *t'* refers to month +10) diverges from the equity valuation date in the above formulas ($P_t$, where *t* refers to the end of the previous fiscal year).

This misalignment of *t'* and *t* has no effect on the earnings forecasts per se. In the absence of any new information, a US$ 1 earnings per share forecast at the beginning of the fiscal year (*t*) yields the same number just 10 months later (*t'*). Prices on the other hand increase as they move closer to future expected cash flows, even without new information. To account for this appreciation in price, we discount the month +10 price ($P_{t'}$) to the beginning of the fiscal year, using the imputed cost of capital, i.e., we use $[1+r]^{-10/12}$ as discount factor, where $r$ equals $r_{CT}$, $r_{GLS}$, $r_{OJ}$ and $r_{PEG}$, respectively. This adjustment directly yields cost of equity capital estimates on an annualized basis, which at the same time reflect the information set available at month +10 after the fiscal-year end.[26]

Net dividends ($\hat{d}_{t+\tau}$) are forecasted up to the finite forecast horizon as a constant fraction of expected future earnings per share. We define the dividend payout ratio ($k_t$) as the historic three-year average for each firm. If $k_t$ is missing or outside the range of zero and one, we replace it by the country-year median payout ratio. We use the (annualized) country-specific median of one-year-ahead realized monthly inflation rates as our proxy for long-run growth expectations ($g$ or $g_{lt}$) in the terminal value computations. Negative values are replaced by the country's historical inflation rate, estimated as the median of the monthly inflation rates over the entire sample period, because deflation cannot persist forever. We obtain all financial data ($bv_t$ and $k_t$) from the Worldscope database. Inflation data are gathered from the Datastream and Worldbank databases.

[26] The described procedure is essentially equivalent to using month +10 prices ($P_{t'}$) and discounting the forecasted valuation attributes to date *t'* (see e.g., Francis, Olsson, and Oswald, 2000; Botosan and Plumlee, 2005). In that case, we add a part-year factor of $^2/_{12}$ to the discount factor, i.e., $[1+r]^{\tau-1+2/12}$, where $\tau$ indicates the forecast year and $r$ equals $r_{CT}$, $r_{GLS}$, $r_{OJ}$ and $r_{PEG}$, respectively. In unreported analyses we confirm that this alternative adjustment produces very similar cost of capital estimates.

Since most of the valuation models do not have a closed form solution, we use an iterative procedure to determine the internal rate of return. This numerical approximation identifies the annual firm-specific discount rate that equates $P_t$ to the right-hand side of the respective equity valuation model. We stop iterating if the imputed price falls within a 0.001 difference of its actual value. Implied cost of equity capital estimates are restricted to be positive and set to missing otherwise.

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***Table 1. Sample Composition by Country and Year.***

*Panel A: Accounting Standards, Listing Status and Index Membership by Country*

| | | | *IFRS* | | *U.S. GAAP* | | *U.S. Listing* | | *New Markets* | | *Index Member* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Country* | *Unique Firms* | *Firm-Years* | *Firm-Years* | *%* | *Firm-Years* | *%* | *Firm-Years* | *%* | *Firm-Years* | *%* | *Firm-Years* | *%* |
| Australia | 1,421 | 6,641 | 60 | 0.9 | 14 | 0.2 | 591 | 8.9 | 31 | 0.5 | 2,863 | 43.1 |
| Austria | 151 | 1,177 | 246 | 20.9 | 28 | 2.4 | 117 | 9.9 | 44 | 3.7 | 248 | 21.1 |
| Belgium | 186 | 1,299 | 113 | 8.7 | 10 | 0.8 | 27 | 2.1 | 0 | 0.0 | 346 | 26.6 |
| Bermuda | 27 | 89 | 18 | 20.2 | 32 | 36.0 | 0 | 0.0 | 22 | 24.7 | 23 | 25.8 |
| Canada | 1,663 | 9,214 | 33 | 0.4 | 203 | 2.2 | 1,290 | 14.0 | 2 | 0.0 | 3,063 | 33.2 |
| China | 1,359 | 3,890 | 856 | 22.0 | 18 | 0.5 | 132 | 3.4 | 3 | 0.1 | 128 | 3.3 |
| Czech Republic | 65 | 221 | 47 | 21.3 | 0 | 0.0 | 8 | 3.6 | 0 | 0.0 | 21 | 9.5 |
| Denmark | 253 | 2,247 | 111 | 4.9 | 2 | 0.1 | 31 | 1.4 | 0 | 0.0 | 328 | 14.6 |
| Finland | 163 | 994 | 41 | 4.1 | 8 | 0.8 | 31 | 3.1 | 3 | 0.3 | 261 | 26.3 |
| France | 1,151 | 7,279 | 302 | 4.1 | 81 | 1.1 | 242 | 3.3 | 0 | 0.0 | 2,756 | 37.9 |
| Germany | 904 | 3,762 | 1,051 | 27.9 | 489 | 13.0 | 123 | 3.3 | 1,045 | 27.8 | 688 | 18.3 |
| Greece | 354 | 2,305 | 36 | 1.6 | 6 | 0.3 | 36 | 1.6 | 0 | 0.0 | 657 | 28.5 |
| Hong Kong | 920 | 5,207 | 89 | 1.7 | 10 | 0.2 | 615 | 11.8 | 69 | 1.3 | 1,361 | 26.1 |
| Hungary | 39 | 238 | 139 | 58.4 | 6 | 2.5 | 32 | 13.4 | 0 | 0.0 | 12 | 5.0 |
| Israel | 174 | 688 | 19 | 2.8 | 199 | 28.9 | 57 | 8.3 | 28 | 4.1 | 196 | 28.5 |
| Italy | 368 | 2,319 | 761 | 32.8 | 3 | 0.1 | 50 | 2.2 | 36 | 1.6 | 580 | 25.0 |
| The Netherlands | 267 | 1,755 | 30 | 1.7 | 51 | 2.9 | 107 | 6.1 | 45 | 2.6 | 247 | 14.1 |
| Portugal | 93 | 366 | 12 | 3.3 | 1 | 0.3 | 11 | 3.0 | 0 | 0.0 | 130 | 35.5 |
| Singapore | 247 | 1,367 | 11 | 0.8 | 6 | 0.4 | 59 | 4.3 | 927 | 67.8 | 526 | 38.5 |
| South Africa | 517 | 2,723 | 112 | 4.1 | 4 | 0.1 | 270 | 9.9 | 0 | 0.0 | 781 | 28.7 |
| Sweden | 392 | 2,525 | 66 | 2.6 | 0 | 0.0 | 117 | 4.6 | 40 | 1.6 | 361 | 14.3 |
| Switzerland | 308 | 2,414 | 953 | 39.5 | 43 | 1.8 | 56 | 2.3 | 13 | 0.5 | 385 | 15.9 |
| Turkey | 187 | 1,085 | 187 | 17.2 | 0 | 0.0 | 25 | 2.3 | 0 | 0.0 | 617 | 56.9 |
| United Kingdom | 2,444 | 13,770 | 13 | 0.1 | 13 | 0.1 | 773 | 5.6 | 4 | 0.0 | 5,600 | 40.7 |
| Total | 13,653 | 73,575 | 5,306 | 7.2 | 1,227 | 1.7 | 4,800 | 6.5 | 2,312 | 3.1 | 22,178 | 30.1 |

(continued)

*Panel B: Accounting Standards, Listing Status and Index Membership by Year*

| | | *IFRS* | | *U.S. GAAP* | | *U.S. Listing* | | *New Markets* | | *Index Member* | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Year* | *Firms* | *Firms* | *%* | *Firms* | *%* | *Firms* | *%* | *Firms* | *%* | *Firms* | *%* |
| 1988 | 605 | 15 | 2.5 | 2 | 0.3 | 30 | 5.0 | 30 | 5.0 | 257 | 42.5 |
| 1989 | 972 | 26 | 2.7 | 2 | 0.2 | 57 | 5.9 | 36 | 3.7 | 386 | 39.7 |
| 1990 | 1,323 | 37 | 2.8 | 6 | 0.5 | 83 | 6.3 | 39 | 2.9 | 478 | 36.1 |
| 1991 | 2,171 | 65 | 3.0 | 13 | 0.6 | 111 | 5.1 | 44 | 2.0 | 761 | 35.1 |
| 1992 | 2,499 | 83 | 3.3 | 14 | 0.6 | 133 | 5.3 | 63 | 2.5 | 868 | 34.7 |
| 1993 | 2,770 | 110 | 4.0 | 18 | 0.6 | 151 | 5.5 | 77 | 2.8 | 948 | 34.2 |
| 1994 | 3,212 | 172 | 5.4 | 22 | 0.7 | 189 | 5.9 | 76 | 2.4 | 1,058 | 32.9 |
| 1995 | 3,448 | 183 | 5.3 | 22 | 0.6 | 226 | 6.6 | 92 | 2.7 | 1,150 | 33.4 |
| 1996 | 3,790 | 226 | 6.0 | 30 | 0.8 | 283 | 7.5 | 138 | 3.6 | 1,277 | 33.7 |
| 1997 | 4,500 | 275 | 6.1 | 29 | 0.6 | 350 | 7.8 | 161 | 3.6 | 1,455 | 32.3 |
| 1998 | 4,754 | 296 | 6.2 | 34 | 0.7 | 392 | 8.2 | 171 | 3.6 | 1,578 | 33.2 |
| 1999 | 5,384 | 389 | 7.2 | 71 | 1.3 | 417 | 7.7 | 118 | 2.2 | 1,732 | 32.2 |
| 2000 | 5,883 | 505 | 8.6 | 115 | 2.0 | 449 | 7.6 | 157 | 2.7 | 1,843 | 31.3 |
| 2001 | 6,997 | 641 | 9.2 | 189 | 2.7 | 495 | 7.1 | 270 | 3.9 | 2,039 | 29.1 |
| 2002 | 7,724 | 708 | 9.2 | 222 | 2.9 | 522 | 6.8 | 284 | 3.7 | 2,186 | 28.3 |
| 2003 | 8,723 | 749 | 8.6 | 228 | 2.6 | 473 | 5.4 | 281 | 3.2 | 2,113 | 24.2 |
| 2004 | 8,820 | 826 | 9.4 | 210 | 2.4 | 439 | 5.0 | 275 | 3.1 | 2,049 | 23.2 |
| Total | 73,575 | 5,306 | 7.2 | 1,227 | 1.7 | 4,800 | 6.5 | 2,312 | 3.1 | 22,178 | 30.1 |

The base sample comprises 73,575 firm-year observations from 24 countries between 1988 and 2004, for which we have sufficient Worldscope and Datastream data to estimate our base regressions (see Table 3). We include only countries with at least ten IFRS firm-year observations. Panel A reports the number of firms and the number and percentage of firm-year observations by country. Panel B reports the number of observations and corresponding percentages by year for various indicator variables (coded one if the definition applies to a given firm-year observation and zero otherwise): *IFRS* and *U.S. GAAP* indicate financial reports following IFRS and U.S. GAAP, respectively, based on the "accounting standards followed" field in Worldscope (Field 07536) and adjusted for contradicting coding from a comprehensive manual review of firms' annual reports (see Appendix A for details). We form a separate category, *U.S. listing*, for companies whose shares are traded over-the-counter or listed on a U.S. exchange. These observations are not included in the U.S. GAAP indicator. *New market* observations stem from firms whose shares are traded on an exchange specializing in technology shares and other high-growth stocks *and* where listing requirements mandate or allow for IFRS reporting, i.e., Bovespa Novo Mercado (Brazil), Expandi market (Italy), Neuer Markt (Germany), Nordic Growth Market (Sweden), and Sesdaq (Singapore). *Index member* represent firms whose shares are constituents of national or international stock market indices as defined in Worldscope (Field 05661).

***Table 2. Descriptive Statistics for Regression Variables across IFRS and Local GAAP Reporting Firms.***

*Panel A: Dependent Variables*

| *Variable* | *Accounting Standard* | *N* | *Mean* | *Std. Dev.* | *P1* | *P25* | *Median* | *P75* | *P99* |
|---|---|---|---|---|---|---|---|---|---|
| Cost of Capital | Local GAAP | 11,697 | 12.7% | 4.7% | 5.4% | 9.3% | 11.7% | 15.0% | 28.7% |
| | IFRS | 1,879 | 12.1% | 4.4% | 5.4% | 8.9% | 11.3% | 14.2% | 26.3% |
| Bid-Ask Spread | Local GAAP | 46,643 | 0.037 | 0.045 | 0.001 | 0.009 | 0.020 | 0.044 | 0.222 |
| | IFRS | 4,906 | 0.018 | 0.023 | 0.001 | 0.005 | 0.011 | 0.023 | 0.102 |
| Illiquidity | Local GAAP | 68,269 | 18.748 | 78.873 | 0.001 | 0.058 | 0.514 | 4.501 | 416.968 |
| | IFRS | 5,306 | 11.300 | 60.656 | 0.001 | 0.024 | 0.198 | 1.984 | 258.843 |

*Panel B: Independent Variables*

| *Variable* | *Accounting Standard* | *N* | *Mean* | *Std. Dev.* | *P1* | *P25* | *Median* | *P75* | *P99* |
|---|---|---|---|---|---|---|---|---|---|
| Inflation | | 67,476 | 2.5% | 2.1% | 0.0% | 1.4% | 2.1% | 2.9% | 9.8% |
| Total Assets | Local GAAP | 67,796 | 1,252 | 4,158 | 1 | 51 | 174 | 646 | 21,532 |
| | IFRS | 5,236 | 2,269 | 5,437 | 10 | 130 | 465 | 1,723 | 29,176 |
| Financial Leverage | Local GAAP | 66,691 | 0.496 | 0.248 | 0.009 | 0.318 | 0.510 | 0.672 | 0.963 |
| | IFRS | 5,220 | 0.544 | 0.231 | 0.011 | 0.397 | 0.563 | 0.703 | 0.969 |
| Forecast Bias | Local GAAP | 23,405 | 0.010 | 0.042 | -0.074 | -0.005 | 0.001 | 0.013 | 0.208 |
| | IFRS | 2,372 | 0.011 | 0.042 | -0.071 | -0.004 | 0.002 | 0.014 | 0.201 |
| Market Value | Local GAAP | 68,269 | 539 | 1,320 | 2 | 31 | 112 | 393 | 7,339 |
| | IFRS | 5,306 | 968 | 1,903 | 6 | 76 | 257 | 851 | 10,442 |
| Return Variability | Local GAAP | 68,269 | 0.122 | 0.077 | 0.022 | 0.068 | 0.099 | 0.154 | 0.383 |
| | IFRS | 5,306 | 0.124 | 0.073 | 0.021 | 0.073 | 0.105 | 0.159 | 0.358 |
| Share Turnover | Local GAAP | 68,269 | 0.561 | 0.888 | 0.003 | 0.112 | 0.305 | 0.658 | 4.664 |
| | IFRS | 5,306 | 0.531 | 0.866 | 0.003 | 0.112 | 0.276 | 0.614 | 4.517 |

The base sample comprises 73,575 firm-year observations from 24 countries between 1988 and 2004 with financial data from Worldscope and price/volume data from Datastream. We include only countries with at least ten IFRS firm-year observations. IFRS observations are firm-years with financial reports following IFRS according to our augmented Worldscope accounting standards classification described in Appendix A. The table reports descriptive statistics for the dependent variables (Panel A) and the continuous independent variables (Panel B) across IFRS and local GAAP firm-year observations. We use three dependent variables in the analyses: (1) *Cost of capital* is the average cost of capital estimate implied by the mean I/B/E/S analyst consensus forecasts and stock prices using the Claus and Thomas (2001) model, the Gebhardt, Lee, and Swaminathan (2001) model, the Ohlson and Juettner-Nauroth (2005) model and the Easton (2004) model. We describe these models in more detail in Appendix B. (2) The *bid-ask spread* is the yearly median quoted spread (i.e., difference between the bid and ask price divided by the mid-point and measured at the end of each trading day). (3) *Illiquidity* is the yearly median of the Amihud (2002) illiquidity measure (i.e., daily absolute stock return divided by US$ trading volume). The independent variables consist of the following measures: *Inflation* is the yearly median of country-specific, one-year-ahead realized monthly inflation rates. *Total assets* are denominated in US$ millions. We compute *financial leverage* as the ratio of total liabilities to total assets. *Forecast bias* equals the one-year-ahead I/B/E/S analyst forecast error (mean forecast minus actual) scaled by lagged total assets. *Market value* is stock price times the number of shares outstanding (in US$ millions). We compute *return variability* as annual standard deviation of monthly stock returns. *Share turnover* is annual US$ trading volume divided by market value of outstanding equity. Accounting data and market values are measured as of the fiscal-year end, the dependent variables, forecast bias, return variability and share turnover as of month +10 after the fiscal-year end. Except for variables with natural lower or upper bounds, we truncate all variables at the first and 99th percentile.

***Table 3. Cost of Capital, Bid-Ask Spread and Liquidity Effects of Voluntary IFRS Adoptions.***

| | *Cost of Capital* | | *Log(Bid-Ask Spread)* | | *Log(Illiquidity)* | |
|---|---|---|---|---|---|---|
| *Variables* | *Model 1:* | *Model 2:* | *Model 1:* | *Model 2:* | *Model 1:* | *Model 2:* |
| **IFRS** | **0.23** | **0.23** | **4.42*** ** | **-0.34** | **6.32*** | **5.05** |
| | **(1.49)** | **(1.22)** | **(2.81)** | **(0.15)** | **(1.87)** | **(1.17)** |
| **IFRS Firm Indicator** | | **<-0.001** | | **5.78*** ** | | **1.56** |
| | | **(<0.001)** | | **(2.77)** | | **(0.40)** |
| Intercept | 13.37*** | 13.37*** | 49.10*** | 48.82*** | 1,187.90*** | 1,187.84*** |
| | (17.08) | (17.08) | (8.12) | (8.08) | (137.73) | (137.73) |
| Control Variables: | | | | | | |
| U.S. GAAP | 0.01 | 0.01 | 1.71 | 1.36 | -1.24 | -1.30 |
| | (0.02) | (0.02) | (0.59) | (0.46) | (0.20) | (0.21) |
| U.S. Listing | -0.50*** | -0.50*** | -0.82 | -0.87 | -39.60*** | -39.60*** |
| | (3.16) | (3.16) | (0.44) | (0.47) | (12.18) | (12.17) |
| New Markets | -1.12*** | -1.12*** | 9.28*** | 9.23*** | 30.65*** | 30.60*** |
| | (3.40) | (3.41) | (3.85) | (3.81) | (6.06) | (6.04) |
| Index Member | -1.54*** | -1.54*** | -15.33*** | -15.55*** | -55.90*** | -55.96*** |
| | (11.17) | (11.09) | (13.11) | (13.31) | (25.35) | (25.29) |
| Inflation | 25.38*** | 25.38*** | | | | |
| | (9.01) | (9.01) | | | | |
| Log(Total Assets) | -0.26*** | -0.26*** | | | | |
| | (6.40) | (6.41) | | | | |
| Return Variability | 9.73*** | 9.73*** | | | | |
| | (10.13) | (10.13) | | | | |
| Financial Leverage | 4.29*** | 4.29*** | | | | |
| | (15.17) | (15.17) | | | | |
| Forecast Bias | 14.67*** | 14.67*** | | | | |
| | (10.87) | (10.87) | | | | |
| Log(Market Value$_{t-1}$) | | | -32.21*** | -32.24*** | -104.40*** | -104.41*** |
| | | | (115.45) | (115.57) | (179.22) | (179.16) |
| Log(Share Turnover$_{t-1}$) | | | -24.70*** | -24.70*** | -83.91*** | -83.91*** |
| | | | (70.57) | (70.30) | (124.18) | (124.19) |
| Log(Return Variability$_{t-1}$) | | | 41.44*** | 41.35*** | 70.69*** | 70.67*** |
| | | | (53.50) | (53.52) | (48.31) | (48.32) |
| Country, Year, and Industry Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| $R^2$ | 34.93% | 34.93% | 78.08% | 78.09% | 82.92% | 82.92% |
| # Observations | 13,576 | 13,576 | 51,549 | 51,549 | 73,575 | 73,575 |
| # Unique Firms | 3,295 | 3,295 | 10,868 | 10,868 | 13,653 | 13,653 |
| # Countries | 18 | 18 | 20 | 20 | 24 | 24 |

(continued)

The base sample comprises 73,575 firm-year observations from 24 countries between 1988 and 2004. The cost of capital sample is limited to firm-year observations between 1992 and 2004 for which the required I/B/E/S forecast data are available. We include only countries with at least ten IFRS firm-year observations. The table reports OLS coefficient estimates and (in parentheses) t-statistics based on robust standard errors that are clustered by firm. We use three dependent variables in the analyses: (1) *Cost of capital* is the mean of four estimates for the implied cost of equity capital (see Appendix B). (2) The *bid-ask spread* is the yearly median quoted spread (i.e., difference between the bid and ask price divided by the mid-point and measured at the end of each trading day). (3) *Illiquidity* is the yearly median of the Amihud (2002) illiquidity measure (i.e., daily absolute stock return divided by US$ trading volume). *IFRS* is a binary variable equal to one if the firm reports under IFRS in a particular year. If the firm adopts IFRS in any year during the sample period, we set the *IFRS firm indicator* equal to one for the entire time series. IFRS observations are firm-years with financial reports following IFRS according to our augmented Worldscope accounting standards classification described in Appendix A. For a description of the control variables see Table 1 (indicator variables) and Table 2 (continuous variables). We use the natural log of the raw values and lag the variables by one year where indicated. We include industry-fixed effects based on the classification in Campbell (1996), country- and year-fixed effects in the regressions but do not report the coefficients. For expositional purposes we multiply all coefficients by 100. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

***Table 4. Univariate Analysis of Cost of Capital, Bid-Ask Spread and Liquidity Effects across Label and Serious IFRS Adopters.***

*Median Values and Number of Observations*

*Panel A: Cost of Capital Effects*

**Annual Report Page Numbers**

| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
|---|---|---|---|
| IFRS (a) | 11.6% 262 | 11.2% 432 | -0.4% |
| Local GAAP (b) | 11.7% 11,372 | | |
| Difference (a) – (b) | -0.1% | -0.5%*** | |

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| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
|---|---|---|---|
| IFRS (a) | 11.3% 1,411 | 10.0% 321 | -1.3%*** |
| Local GAAP (b) | 11.6% 10,524 | | |
| Difference (a) – (b) | -0.2%*** | -1.5%*** | |

**Magnitude of Accruals**

| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
|---|---|---|---|
| IFRS (a) | 11.4% 444 | 11.3% 250 | -0.1% |
| Local GAAP (b) | 11.7% 11,372 | | |
| Difference (a) – (b) | -0.4%* | -0.4%* | |

**Reporting Incentives Factor**

| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
|---|---|---|---|
| IFRS (a) | 12.7% 860 | 10.4% 1,019 | -2.3%*** |
| Local GAAP (b) | 11.7% 11,697 | | |
| Difference (a) – (b) | 1.0%*** | -1.3%*** | |

*Panel B: Bid-Ask Spread Effects*

**Annual Report Page Numbers**

| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
|---|---|---|---|
| IFRS (a) | 0.013 833 | 0.010 1,155 | -0.003*** |
| Local GAAP (b) | 0.020 45,833 | | |
| Difference (a) – (b) | -0.007*** | -0.010*** | |

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| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
|---|---|---|---|
| IFRS (a) | 0.013 3,425 | 0.006 377 | -0.007*** |
| Local GAAP (b) | 0.022 38,837 | | |
| Difference (a) – (b) | -0.008*** | -0.016*** | |

**Magnitude of Accruals**

| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
|---|---|---|---|
| IFRS (a) | 0.012 1,507 | 0.010 481 | -0.002*** |
| Local GAAP (b) | 0.020 45,833 | | |
| Difference (a) – (b) | -0.008*** | -0.011*** | |

**Reporting Incentives Factor**

| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
|---|---|---|---|
| IFRS (a) | 0.016 2,888 | 0.007 2,018 | -0.009*** |
| Local GAAP (b) | 0.020 46,643 | | |
| Difference (a) – (b) | -0.004*** | -0.013*** | |

(continued)

***Table 4. (Continued)***

*Median Values and Number of Observations*

*Panel C: Share Illiquidity Effects*

| | **Annual Report Page Numbers** | | | **Cairns IFRS Report** | | |
|---|---|---|---|---|---|---|
| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
| IFRS (a) | 0.315<br>936 | 0.165<br>1,245 | -0.150*** | 0.283<br>3,789 | 0.013<br>414 | -0.270*** |
| Local GAAP (b) | 0.527<br>67,383 | | | 0.654<br>60,587 | | |
| Difference (a) – (b) | -0.212*** | -0.362*** | | -0.371*** | -0.641*** | |

| | **Magnitude of Accruals** | | | **Reporting Incentives Factor** | | |
|---|---|---|---|---|---|---|
| | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) | Label Adopters (1) | Serious Adopters (2) | Difference (2) – (1) |
| IFRS (a) | 0.253<br>1,661 | 0.140<br>520 | -0.113*** | 0.891<br>3,062 | 0.033<br>2,244 | -0.858*** |
| Local GAAP (b) | 0.527<br>67,383 | | | 0.514<br>68,269 | | |
| Difference (a) – (b) | -0.274*** | -0.387*** | | 0.378*** | -0.481*** | |

The base sample comprises 73,575 firm-year observations from 24 countries between 1988 and 2004. The cost of capital sample is limited to firm-year observations between 1992 and 2004 for which the required I/B/E/S forecast data are available. We include only countries with at least ten IFRS firm-year observations. The table reports median values of the dependent variables and the number of observations across firms reporting under local GAAP, serious IFRS adopters and label IFRS adopters. We use three dependent variables in the analyses: (1) *Cost of capital* is the mean of four estimates for the implied cost of equity capital (see Appendix B). (2) The *bid-ask spread* is the yearly median quoted spread (i.e., difference between the bid and ask price divided by the mid-point and measured at the end of each trading day). (3) *Illiquidity* is the yearly median of the Amihud (2002) illiquidity measure (i.e., daily absolute stock return divided by US$ trading volume). IFRS observations are firm-years with financial reports following IFRS according to our augmented Worldscope accounting standards classification described in Appendix A. In each panel, we partition the IFRS firm-years into those stemming from serious and label IFRS adopters using the following criteria: (1) the annual report page numbers classification designates firms as serious adopters if the mean annual report page number in the three years immediately following the IFRS adoption increases compared to the two pre-adoption years. (2) We use the Cairns (1999, 2000) IFRS survey reports of how firms adopted IFRS and identify serious adopters when the annual report is in full compliance with IFRS (i.e., compliance score equals 1 or 2). (3) We measure firms' magnitude of accruals by the yearly absolute value of accruals scaled by the absolute value of cash flow from operations. We classify firms as serious IFRS adopters if the magnitude of accruals averaged over the four post-adoption years decreases compared to the four pre-adoption years. (4) Using factor analysis, we summarize the following variables into a single factor indicating the strength of firms' reporting incentives: market value of equity, financial leverage, return on assets, Tobin's Q, percent of closely-held shares and percent of firms' foreign sales out of total sales. We classify firms as serious IFRS adopters if their (time-series) average factor score is above the median average factor score for all IFRS firms. For classifications (1) and (3), we limit our analysis to the initial four IFRS firm-years after the adoption. ***, **, and * indicate statistical significance of median differences at the 1%, 5%, and 10% levels (two-tailed), respectively, based on a Wilcoxon rank sum test.

***Table 5. Regression Analysis of Cost of Capital, Bid-Ask Spread and Liquidity Effects across Label and Serious IFRS Adopters.***

*Panel A: Cost of Capital as Dependent Variable*

| | *Label versus Serious IFRS Adopter Classifications* | | | |
|---|---|---|---|---|
| | *Annual Report Page Numbers* | *Cairns IFRS Report* | *Magnitude of Accruals* | *Reporting Incentives Factor* |
| **IFRS** | **1.05*** ** | **0.18** | **0.77*** ** | **1.15*** ** |
| | **(3.21)** | **(1.07)** | **(3.12)** | **(5.34)** |
| **Serious IFRS Adopters** | **-0.82** ** | **-0.45** | **-0.64*** | **-1.60*** ** |
| | **(2.12)** | **(1.41)** | **(1.69)** | **(6.25)** |
| **F-Test (p-value)** | **(0.33)** | **(0.39)** | **(0.71)** | **(0.01)** |
| Intercept: | 13.59*** | 13.21*** | 13.62*** | 13.21*** |
| | (16.06) | (16.79) | (16.02) | (17.02) |
| Control Variables: | | | | |
| U.S. GAAP | 0.04 | 0.10 | 0.01 | 0.13 |
| | (0.10) | (0.22) | (0.02) | (0.31) |
| U.S. Listing | -0.43** | -0.58*** | -0.42** | -0.49*** |
| | (2.46) | (3.47) | (2.40) | (3.13) |
| New Markets | -1.36*** | -0.98*** | -1.28*** | -1.41*** |
| | (3.64) | (2.96) | (3.46) | (4.34) |
| Index Member | -1.55*** | -1.52*** | -1.55*** | -1.46*** |
| | (10.64) | (10.61) | (10.62) | (10.65) |
| Inflation | 25.47*** | 25.79*** | 25.57*** | 25.15*** |
| | (8.50) | (8.91) | (8.53) | (8.94) |
| Log(Total Assets) | -0.29*** | -0.28*** | -0.29*** | -0.25*** |
| | (6.53) | (6.41) | (6.56) | (6.13) |
| Return Variability | 9.58*** | 9.29*** | 9.57*** | 9.77*** |
| | (9.44) | (9.28) | (9.43) | (10.19) |
| Financial Leverage | 4.27*** | 4.38*** | 4.27*** | 0.0422*** |
| | (14.31) | (14.74) | (14.31) | (15.01) |
| Forecast Bias | 13.82*** | 15.39*** | 13.85*** | 14.50*** |
| | (9.86) | (10.73) | (9.87) | (10.77) |
| Country, Year, and Industry Fixed Effects | Yes | Yes | Yes | Yes |
| $R^2$ | 35.2% | 35.7% | 35.2% | 35.3% |
| # Observations | 12,066 | 12,256 | 12,066 | 13,576 |
| # Unique Firms | 3,013 | 2,984 | 3,013 | 3,295 |
| # Countries | 18 | 16 | 18 | 18 |

(continued)

***Table 5. (Continued)***

*Panel B: Log(Bid-Ask Spread) as Dependent Variable*

| | *Label versus Serious IFRS Adopter Classifications* | | | |
|---|---|---|---|---|
| | *Annual Report Page Numbers* | *Cairns IFRS Report* | *Magnitude of Accruals* | *Reporting Incentives Factor* |
| **IFRS** | **2.97** | **-3.29**** | **1.75** | **8.29***** |
| | **(0.97)** | **(2.15)** | **(0.81)** | **(4.09)** |
| **Serious IFRS Adopters** | **-5.83** | **-9.53**** | **-8.99**** | **-9.33***** |
| | **(1.61)** | **(2.57)** | **(2.25)** | **(3.49)** |
| **F-Test (p-value)** | **(0.21)** | **(0.00)** | **(0.05)** | **(0.62)** |
| Intercept: | 26.44*** | 51.76*** | 26.55*** | 47.86*** |
| | (4.24) | (7.73) | (4.26) | (7.92) |
| Control Variables: | | | | |
| U.S. GAAP | -3.95 | -1.62 | -4.04 | 2.38 |
| | (1.22) | (0.56) | (1.26) | (0.82) |
| U.S. Listing | -2.54 | -6.16*** | -2.45 | -0.88 |
| | (1.39) | (3.56) | (1.33) | (0.48) |
| New Markets | 14.03*** | 10.37*** | 14.21*** | 7.92*** |
| | (4.92) | (4.31) | (5.06) | (3.21) |
| Index Member | -16.41*** | -17.86*** | -16.39*** | -15.17*** |
| | (13.58) | (14.48) | (13.57) | (12.97) |
| Log(Market Value$_{t-1}$) | -31.89*** | -31.75*** | -31.90*** | -32.10*** |
| | (110.29) | (107.19) | (110.43) | (115.00) |
| Log(Share Turnover$_{t-1}$) | -23.87*** | -23.17*** | -23.86*** | -24.69*** |
| | (66.06) | (60.82) | (66.09) | (70.58) |
| Log(Return Variability$_{t-1}$) | 41.46*** | 37.93*** | 41.46*** | 41.47*** |
| | (51.47) | (45.28) | (51.48) | (53.47) |
| Country, Year, and Industry Fixed Effects | Yes | Yes | Yes | Yes |
| $R^2$ | 78.1% | 74.5% | 78.1% | 78.1% |
| # Observations | 47,821 | 42,639 | 47,821 | 51,549 |
| # Unique Firms | 10,358 | 7,739 | 10,358 | 10,868 |
| # Countries | 20 | 14 | 20 | 20 |

(continued)

***Table 5. (Continued)***

*Panel C: Log(Illiquidity) as Dependent Variable*

| | *Label versus Serious IFRS Adopter Classifications* | | | |
|---|---|---|---|---|
| | *Annual Report Page Numbers* | *Cairns IFRS Report* | *Magnitude of Accruals* | *Reporting Incentives Factor* |
| **IFRS** | **9.49** | **-2.36** | **10.91**** | **28.69***** |
| | **(1.47)** | **(0.61)** | **(2.13)** | **(6.69)** |
| **Serious IFRS Adopters** | **-2.31** | **-48.70***** | **-11.51** | **-52.79***** |
| | **(0.29)** | **(4.49)** | **(1.40)** | **(9.39)** |
| **F-Test (p-value)** | **(0.19)** | **(0.00)** | **(0.93)** | **(0.00)** |
| Intercept: | 1,095.89*** | 1,175.45*** | 1,095.83*** | 1,182.81*** |
| | (120.82) | (128.45) | (120.83) | (137.54) |
| Control Variables: | | | | |
| U.S. GAAP | -1.30 | -6.95 | -1.27 | 0.51 |
| | (0.20) | (1.01) | (0.19) | (0.08) |
| U.S. Listing | -40.59*** | -40.74*** | -40.53*** | -40.13*** |
| | (11.81) | (11.61) | (11.79) | (12.32) |
| New Markets | 33.71*** | 35.60*** | 33.62*** | 25.35*** |
| | (5.84) | (5.73) | (5.86) | (5.04) |
| Index Member | -57.66*** | -59.70*** | -57.64*** | -55.03*** |
| | (25.41) | (25.48) | (25.39) | (24.99) |
| Log(Market Value$_{t-1}$) | -103.30*** | -102.93*** | -103.30*** | -103.93*** |
| | (172.85) | (166.49) | (172.87) | (179.00) |
| Log(Share Turnover$_{t-1}$) | -82.19*** | -81.90*** | -82.18*** | -83.86*** |
| | (119.45) | (113.37) | (119.49) | (124.57) |
| Log(Return Variability$_{t-1}$) | 70.36*** | 69.85*** | 70.36*** | 70.81*** |
| | (47.19) | (44.55) | (47.19) | (48.54) |
| Country, Year, and Industry Fixed Effects | Yes | Yes | Yes | Yes |
| $R^2$ | 82.9% | 83.0% | 82.9% | 83.0% |
| # Observations | 69,564 | 64,790 | 69,564 | 73,575 |
| # Unique Firms | 13,134 | 11,419 | 13,134 | 13,653 |
| # Countries | 24 | 19 | 24 | 24 |

The base sample comprises 73,575 firm-year observations from 24 countries between 1988 and 2004. The cost of capital sample is limited to firm-year observations between 1992 and 2004 for which the required I/B/E/S forecast data are available. We include only countries with at least ten IFRS firm-year observations. The table reports OLS coefficient estimates and (in parentheses) t-statistics based on robust standard errors that are clustered by firm. It also reports p-values from an F-test indicating joint statistical significance of the coefficients on *IFRS* and *serious IFRS adopters*. We use three dependent variables in the analyses: (1) *Cost of capital* is the mean of four estimates for the implied cost of equity capital (see Appendix B). (2) The *bid-ask spread* is the yearly median quoted spread. (3) *Illiquidity* is the yearly median of the Amihud (2002) illiquidity measure. *IFRS* is a binary variable indicating firm-years with financial reports following IFRS according to our augmented Worldscope accounting standards classification described in Appendix A. *Serious IFRS adopters* is a binary variable that is set equal to 1 using one of the following classifications: (1) the annual report page numbers classification designates firms as serious adopters if the mean annual report page number in the three years immediately following the IFRS adoption increases compared to the two pre-adoption years. (2) We use the Cairns (1999, 2000) IFRS survey reports of how firms adopted IFRS and identify serious adopters when the annual report is in full compliance with IFRS (i.e., Cairns compliance score 1 or 2). (3) We measure firms' magnitude of accruals by the yearly absolute value of accruals scaled by the absolute value of cash flow from operations. We classify firms as serious IFRS adopters if the magnitude of accruals averaged over the four post-adoption years decreases compared to the four pre-adoption years. (4) Using factor analysis, we summarize the following variables into a single factor indicating the strength of firms' reporting incentives: market value of equity, financial leverage, return on assets, Tobin's Q, percent of closely-held shares and percent of firms' foreign sales out of total sales. We classify firms as serious IFRS adopters if their average factor score is above the median average factor score for all IFRS firms. For classifications (1) and (3), we limit our analysis to the initial four IFRS firm-years after the adoption. For a description of the control variables see Table 1 (indicator variables) and Table 2 (continuous variables). We use the natural log of the raw values and lag the variables by one year where indicated. We include industry-fixed effects based on the classification in Campbell (1996), country- and year-fixed effects in the regressions but do not report the coefficients. For expositional purposes we multiply all coefficients by 100. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels (two-tailed), respectively.

***Table A1. Definition of Accounting Standards Classifications.***

*Panel A: Coding Based on Worldscope (WS) "Accounting Standards Followed" (Field 07536)*

| *WS Code* | *WS Description* | *Coding for analyses* |
|---|---|---|
| We code firm-year observations as IFRS if one of the following cases applies: | | IFRS |
| 02 | International standards | |
| 06 | International standards and some EU guidelines | |
| 08 | Local standards with EU and IASC guidelines | |
| 12 | International standards – inconsistency problems | |
| 16 | International standards and some EU guidelines – inconsistency problems | |
| 18 | Local standards with some IASC guidelines | |
| 19 | Local standards with OECD and IASC guidelines | |
| 23 | IFRS | |
| We code firm-year observations as U.S. GAAP if one of the following cases applies: | | U.S. GAAP |
| 03 | U.S. standards (GAAP) | |
| 13 | US standards – inconsistency problems | |
| 20 | US GAAP reclassified from local standards | |
| We code firm-year observations as local if one of the following cases applies: | | Local |
| 01 | Local standards | |
| 05 | EU standards | |
| 07 | Specific standards set by the group | |
| 09 | Not disclosed | |
| 10 | Local standards with some EU guidelines | |
| 11 | Local standards – inconsistency problems | |
| 14 | Commonwealth standards – inconsistency problems | |
| 15 | EEC standards – inconsistency problems | |
| 17 | Local standards with some OECD guidelines | |
| 21 | Local standards with a certain reclassification for foreign companies | |
| 22 | Other | |

*Panel B: Coding Based on Global Vantage (GV) "Accounting Standard" (Field ASTD)*

| *GV Code* | *GV Description* | *Coding for analyses* |
|---|---|---|
| We code firm-year observations as IFRS if one of the following cases applies: | | IFRS |
| DA | Domestic standards generally in accordance with IASC and OECD guidelines | |
| DI | Domestic standards generally in accordance with IASC guidelines | |
| DT | Domestic standards in accordance with principles generally accepted in the United States and generally in accordance with IASC and OECD guidelines | |
| We code firm-year observations as U.S. GAAP if one of the following cases applies: | | U.S. GAAP |
| DU | Domestic standards in accordance with principles generally accepted in the U.S. | |
| MU | Modified United States' standards (Japanese companies' financial statements translated into English) | |
| US | United States' standards | |
| We code firm-year observations as local if one of the following cases applies: | | Local |
| DD | Domestic standards for parents and domestic subsidiaries. Native country or United States' standards for overseas subsidiaries | |
| DO | Domestic standards generally in accordance with OECD guidelines | |
| DR | Accounts reclassified to show allowance for doubtful accounts and/or accumulated depreciation as a reduction of assets rather than liabilities | |
| DS | Domestic standards | |
| MI | Accounts reclassified by SPCS to combine separate life insurance and non-life insurance accounts | |
| LJ | Combination DR and MI | |

(continued)

***Table A1. (Continued)***

*Panel C: Hand-coded Classification Based on Firms' Annual Reports*

| *Description* | *Coding for analyses* |
|---|---|
| We code firm-year observations as IFRS if one of the following cases applies:<br>(1) Notes to consolidated financial statements refer to IAS/IFRS standards only<br>(2) Annual report has two separate sections with two full sets of consolidated financial statements (balance sheet, income statement, statement of cash flows), one set under local GAAP, and one set under IAS/IFRS (Parallel Reporting)<br>(3) Notes to consolidated financial statements refer to IAS/IFRS in the first place, but also refers to compliance with local GAAP<br>(4) Notes to consolidated financial statements refer to local GAAP in the first place, but also refers to compliance with IAS/IFRS<br>(5) Notes to consolidated financial statements refer to full compliance with local GAAP, but also to application of IAS/IFRS standards if local GAAP is silent about a reporting issue (Dual Reporting)<br>(6) Notes to consolidated financial statements refer to full application local GAAP, but there is also a reconciliation of net income and/or shareholders' equity to IAS/IFRS in a separate section of the annual report (Reconciliation) | IFRS |
| We code firm-year observations as U.S. GAAP if one of the following cases applies:<br>(1) Notes to consolidated financial statements refer to U.S. GAAP standards only<br>(2) Annual report has two separate sections with two full sets of consolidated financial statements (balance sheet, income statement, statement of cash flows), one set under local GAAP, and one set under U.S. GAAP (Parallel Reporting)<br>(3) Notes to consolidated financial statements refer to U.S. GAAP in the first place, but also refers to compliance with local GAAP<br>(4) Notes to consolidated financial statements refer to local GAAP in the first place, but also refers to compliance with U.S. GAAP<br>(5) Notes to consolidated financial statements refer to full compliance with local GAAP, but also to application of U.S. GAAP standards if local GAAP is silent about a reporting issue (Dual Reporting)<br>(6) Notes to consolidated financial statements refer to full application local GAAP, but there is also a reconciliation of net income and/or shareholders' equity to U.S. GAAP in a separate section of the annual report (Reconciliation) | U.S. GAAP |
| We code firm-year observations as local if one of the following cases applies:<br>(1) Notes to consolidated financial statements refer to local GAAP only<br>(2) Notes to consolidated financial statements refer to local GAAP only, but selected individual IAS/IFRS or U.S. GAAP standards are applied on specific reporting issues (e.g. Leasing IAS 17, Segment Reporting SFAS 131) | Local |

The table describes the assignment of firm-year observations to the three categories reporting under IFRS, U.S. GAAP or local GAAP using the accounting standards classification in Worldscope (Panel A), Global Vantage (Panel B), and our own classification applied to a comprehensive set of firms' annual reports collected through Thomson Research (Panel C).

***Table A2. Comparison of Accounting Standards Classifications by Data Source (Based on Sample Used in Main Analyses, i.e., 73,575 Observations).***

*Panel A: Worldscope versus Global Vantage Classifications*

| | *Comprehensive Coding for IFRS* | | | | *Stricter Coding for IFRS* | | | |
|---|---|---|---|---|---|---|---|---|
| | *Worldscope Classification* | | | | *Worldscope Classification* | | | |
| *Global Vantage Classification* | *IFRS* | *U.S. GAAP* | *Local* | *Total* | *IFRS* | *U.S. GAAP* | *Local* | *Total* |
| IFRS | 2,537 | 9 | 868 | 3,414 | 2,199 | 9 | 1,074 | 3,282 |
| | 3.5% | 0.0% | 1.2% | 4.6% | 3.0% | 0.0% | 1.5% | 4.5% |
| U.S. GAAP | 51 | 668 | 196 | 915 | 5 | 170 | 156 | 331 |
| | 0.1% | 0.9% | 0.3% | 1.2% | 0.0% | 0.2% | 0.2% | 0.5% |
| Local | 2,760 | 194 | 42,933 | 45,887 | 839 | 692 | 45,072 | 46,603 |
| | 3.8% | 0.3% | 58.4% | 62.4% | 1.1% | 1.0% | 61.3% | 63.3% |
| Not covered | 957 | 331 | 22,071 | 23,359 | 495 | 331 | 22,533 | 23,359 |
| | 1.3% | 0.5% | 30.0% | 31.8% | 0.7% | 0.5% | 30.6% | 31.8% |
| Total | 6,305 | 1,202 | 66,068 | 73,575 | 3,538 | 1,202 | 68,835 | 73,575 |
| | 8.6% | 1.6% | 89.8% | 100.0% | 4.8% | 1.6% | 93.6% | 100.0% |

*Panel B: Hand-coded Classification versus Worldscope and Global Vantage Classifications*

| | *Worldscope Classification* | | | | | *Global Vantage Classification* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Hand-coded Classification* | *IFRS* | *U.S. GAAP* | *Local* | *Not covered* | *Total* | *IFRS* | *U.S. GAAP* | *Local* | *Not covered* | *Total* |
| IFRS | 3,724 | 10 | 829 | - | 4,563 | 2,639 | 15 | 1,308 | 601 | 4,563 |
| | 5.1% | 0.0% | 1.1% | | 6.2% | 3.6% | 0.0% | 1.8% | 0.8% | 6.2% |
| U.S. GAAP | 57 | 884 | 447 | - | 1,388 | 33 | 617 | 424 | 314 | 1,388 |
| | 0.1% | 1.2% | 0.6% | | 1.9% | 0.0% | 0.8% | 0.6% | 0.4% | 1.9% |
| Local | 1,781 | 59 | 3,752 | - | 5,592 | 439 | 80 | 3,937 | 1,136 | 5,592 |
| | 2.4% | 0.1% | 5.1% | | 7.6% | 0.6% | 0.1% | 5.4% | 1.5% | 7.6% |
| No annual report data | 743 | 249 | 61,040 | - | 62,032 | 303 | 203 | 40,218 | 21,308 | 62,032 |
| | 1.0% | 0.3% | 83.0% | | 84.3% | 0.4% | 0.3% | 54.7% | 29.0% | 84.3% |
| Total | 6,305 | 1,202 | 66,068 | - | 73,575 | 3,414 | 915 | 45,887 | 23,359 | 73,575 |
| | 8.6% | 1.6% | 89.8% | | 100.0% | 4.6% | 1.2% | 62.4% | 31.8% | 100.0% |

*Panel C: Pearson's Correlation Coefficients of IFRS Classifications across Data Sources*

| | *Worldscope Classification* | *Global Vantage Classification* |
|---|---|---|
| Hand-coded Classification | 0.710 | 0.730 |
| p-values | (0.000) | (0.000) |
| N | 11,543 | 9,492 |
| Worldscope Classification | | 0.557 |
| p-values | | (0.000) |
| N | | 50,216 |

The table presents the number of observations and percentages across different accounting standards classifications for our base sample comprising 73,575 firm-year observations from 24 countries between 1988 and 2004 with sufficient Worldscope and Datastream data to compute the control variables. In Panel A, we compare IFRS, U.S. GAAP or local GAAP firm-year observations based on the accounting standards classification in Worldscope and Global Vantage. The first half of the panel applies the coding scheme as outlined in Table A1. In the second half we use a stricter coding definition for IFRS observations consisting of Worldscope categories 02 ("International standards") and 23 ("IFRS") together with Global Vantage category DI ("Domestic standards generally in accordance with IASC guidelines"). In Panel B, we compare our own classification based on a comprehensive manual review of firms' annual reports (see Table A1, Panel C) to the coding based on Worldscope and Global Vantage. Panel C reports the respective Pearson correlations across the three data sources.

***Table A3. Comparison of Accounting Standards Classifications by Country.***

| | | *Worldscope Classification* | | | | | *Global Vantage Classification* | | | | | *Hand-coded Classification* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *IFRS* | | *U.S. GAAP* | | | *IFRS* | | *U.S. GAAP* | | | *IFRS* | | *U.S. GAAP* | |
| *Country* | *n* | *n* | *%* | *n* | *%* | *n* | *n* | *%* | *n* | *%* | *n* | *n* | *%* | *n* | *%* |
| Argentina | 899 | 3 | 0.3 | 10 | 1.1 | 361 | 0 | 0 | 6 | 1.7 | 337 | 3 | 0.9 | 7 | 2.1 |
| Australia | 12,371 | 142 | 1.1 | 22 | 0.2 | 4,917 | 17 | 0.3 | 8 | 0.2 | 4,044 | 134 | 3.3 | 23 | 0.6 |
| Austria | 2,027 | 332 | 16.4 | 44 | 2.2 | 1,183 | 282 | 23.8 | 38 | 3.2 | 1,245 | 343 | 27.6 | 43 | 3.5 |
| Belgium | 3,022 | 187 | 6.2 | 39 | 1.3 | 1,636 | 135 | 8.3 | 48 | 2.9 | 1,341 | 179 | 13.3 | 55 | 4.1 |
| Bermuda | 315 | 50 | 15.9 | 120 | 38.1 | 4,422 | 268 | 6.1 | 86 | 1.9 | 220 | 51 | 23.2 | 105 | 47.7 |
| Brazil | 3,673 | 2 | 0.1 | 6 | 0.2 | 1,698 | 0 | 0 | 2 | 0.1 | 1,374 | 1 | 0.1 | 1 | 0.1 |
| Canada | 17,502 | 87 | 0.5 | 418 | 2.4 | 9,641 | 13 | 0.1 | 24 | 0.2 | 7,669 | 40 | 0.5 | 529 | 6.9 |
| Chile | 2,063 | 1 | 0 | 2 | 0.1 | 1,106 | 0 | 0 | 1 | 0.1 | 998 | 0 | 0.0 | 0 | 0.0 |
| China | 10,598 | 1,144 | 10.8 | 108 | 1 | 14,066 | 224 | 1.6 | 4 | 0 | 8,515 | 1,157 | 13.6 | 54 | 0.6 |
| Colombia | 527 | 0 | 0 | 0 | 0 | 265 | 0 | 0 | 0 | 0 | 197 | 0 | 0.0 | 0 | 0.0 |
| Czech Republic | 470 | 90 | 19.1 | 0 | 0 | 194 | 73 | 37.6 | 0 | 0 | 206 | 68 | 33.0 | 0 | 0.0 |
| Denmark | 3,854 | 141 | 3.7 | 14 | 0.4 | 2,086 | 118 | 5.7 | 0 | 0 | 1,853 | 155 | 8.4 | 23 | 1.2 |
| Egypt | 145 | 2 | 1.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Finland | 2,697 | 70 | 2.6 | 0 | 0 | 1,359 | 95 | 7 | 3 | 0.2 | 1,298 | 79 | 6.1 | 8 | 0.6 |
| France | 15,533 | 961 | 6.2 | 182 | 1.2 | 8,100 | 591 | 7.3 | 200 | 2.5 | 5,529 | 347 | 6.3 | 197 | 3.6 |
| Germany | 15,744 | 1,685 | 10.7 | 714 | 4.5 | 8,212 | 1,632 | 19.9 | 841 | 10.2 | 7,681 | 1,723 | 22.4 | 679 | 8.8 |
| Greece | 3,133 | 43 | 1.4 | 29 | 0.9 | 742 | 38 | 5.1 | 16 | 2.2 | 629 | 41 | 6.5 | 23 | 3.7 |
| Hong Kong | 8,855 | 200 | 2.3 | 59 | 0.7 | 2,374 | 13 | 0.5 | 2 | 0.1 | 5,793 | 163 | 2.8 | 33 | 0.6 |
| Hungary | 380 | 192 | 50.5 | 7 | 1.8 | 182 | 132 | 72.5 | 8 | 4.4 | 225 | 154 | 68.4 | 0 | 0.0 |
| India | 4,547 | 8 | 0.2 | 17 | 0.4 | 2,644 | 4 | 0.2 | 6 | 0.2 | 2,010 | 0 | 0.0 | 18 | 0.9 |
| Indonesia | 3,268 | 1 | 0 | 0 | 0 | 2,541 | 0 | 0 | 7 | 0.3 | 2,204 | 0 | 0.0 | 7 | 0.3 |
| Ireland | 1,498 | 40 | 2.7 | 30 | 2 | 784 | 1 | 0.1 | 6 | 0.8 | 660 | 0 | 0.0 | 27 | 4.1 |
| Israel | 1,264 | 45 | 3.6 | 361 | 28.6 | 646 | 21 | 3.3 | 112 | 17.3 | 785 | 49 | 6.2 | 410 | 52.2 |
| Italy | 5,544 | 4,364 | 78.7 | 8 | 0.1 | 2,944 | 6 | 0.2 | 18 | 0.6 | 3,246 | 813 | 25.0 | 34 | 1.0 |
| Japan | 56,817 | 133 | 0.2 | 944 | 1.7 | 45,184 | 5 | 0 | 348 | 0.8 | 36,667 | 0 | 0.0 | 637 | 1.7 |
| Korea (South) | 8,566 | 10 | 0.1 | 5 | 0.1 | 2,146 | 0 | 0 | 2 | 0.1 | 1,987 | 0 | 0.0 | 5 | 0.3 |
| Luxembourg | 484 | 99 | 20.5 | 50 | 10.3 | 305 | 93 | 30.5 | 39 | 12.8 | 191 | 107 | 56.0 | 25 | 13.1 |
| Malaysia | 9,123 | 24 | 0.3 | 0 | 0 | 8,167 | 34 | 0.4 | 0 | 0 | 6,718 | 2 | 0.0 | 0 | 0.0 |
| Mexico | 1,993 | 7 | 0.4 | 8 | 0.4 | 977 | 8 | 0.8 | 3 | 0.3 | 862 | 10 | 1.2 | 15 | 1.7 |
| Morocco | 140 | 1 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(continued)

***Table A3. (Continued)***

| | | *Worldscope Classification* | | | | | *Global Vantage Classification* | | | | | *Hand-coded Classification* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *IFRS* | | *U.S. GAAP* | | | *IFRS* | | *U.S. GAAP* | | | *IFRS* | | *U.S. GAAP* | |
| *Country* | *n* | *n* | *%* | *n* | *%* | *n* | *n* | *%* | *n* | *%* | *n* | *n* | *%* | *n* | *%* |
| The Netherlands | 4,295 | 185 | 4.3 | 232 | 5.4 | 2,533 | 95 | 3.8 | 162 | 6.4 | 2,151 | 131 | 6.1 | 192 | 8.9 |
| New Zealand | 1,463 | 31 | 2.1 | 0 | 0 | 756 | 12 | 1.6 | 25 | 3.3 | 629 | 6 | 1.0 | 28 | 4.5 |
| Norway | 3,120 | 35 | 1.1 | 63 | 2 | 1,722 | 23 | 1.3 | 27 | 1.6 | 1,411 | 30 | 2.1 | 67 | 4.7 |
| Pakistan | 1,017 | 16 | 1.6 | 0 | 0 | 454 | 12 | 2.6 | 0 | 0 | 432 | 68 | 15.7 | 0 | 0.0 |
| Peru | 812 | 10 | 1.2 | 4 | 0.5 | 0 | 0 | 0 | 0 | 0 | 283 | 149 | 52.7 | 6 | 2.1 |
| Philippines | 2,117 | 2 | 0.1 | 18 | 0.9 | 1,575 | 134 | 8.5 | 10 | 0.6 | 789 | 7 | 0.9 | 21 | 2.7 |
| Poland | 880 | 82 | 9.3 | 5 | 0.6 | 362 | 59 | 16.3 | 0 | 0 | 243 | 56 | 23.0 | 5 | 2.1 |
| Portugal | 1,368 | 33 | 2.4 | 1 | 0.1 | 551 | 21 | 3.8 | 0 | 0 | 351 | 36 | 10.3 | 0 | 0.0 |
| Russian Federation | 387 | 113 | 29.2 | 81 | 20.9 | 150 | 60 | 40 | 51 | 34 | 220 | 91 | 41.4 | 57 | 25.9 |
| Singapore | 5,465 | 147 | 2.7 | 35 | 0.6 | 4,410 | 17 | 0.4 | 22 | 0.5 | 3,996 | 139 | 3.5 | 39 | 1.0 |
| South Africa | 5,936 | 75 | 1.3 | 4 | 0.1 | 1,740 | 149 | 8.6 | 5 | 0.3 | 1,452 | 162 | 11.2 | 4 | 0.3 |
| Spain | 3,313 | 22 | 0.7 | 7 | 0.2 | 1,906 | 8 | 0.4 | 5 | 0.3 | 1,556 | 6 | 0.4 | 5 | 0.3 |
| Sri Lanka | 256 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Sweden | 5,376 | 174 | 3.2 | 0 | 0 | 3,099 | 132 | 4.3 | 22 | 0.7 | 2,651 | 93 | 3.5 | 14 | 0.5 |
| Switzerland | 4,863 | 1,515 | 31.2 | 130 | 2.7 | 3,113 | 1,294 | 41.6 | 105 | 3.4 | 3,207 | 1,356 | 42.3 | 117 | 3.6 |
| Taiwan | 8,873 | 1 | 0 | 11 | 0.1 | 2,477 | 0 | 0 | 0 | 0 | 2,249 | 0 | 0.0 | 15 | 0.7 |
| Thailand | 5,033 | 5 | 0.1 | 0 | 0 | 4,140 | 9 | 0.2 | 1 | 0 | 3,530 | 4 | 0.1 | 0 | 0.0 |
| Turkey | 1,921 | 255 | 13.3 | 2 | 0.1 | 469 | 156 | 33.3 | 10 | 2.1 | 945 | 276 | 29.2 | 6 | 0.6 |
| United Kingdom | 37,700 | 233 | 0.6 | 83 | 0.2 | 18,228 | 56 | 0.3 | 50 | 0.3 | 15,669 | 170 | 1.1 | 53 | 0.3 |
| Venezuela | 454 | 3 | 0.7 | 17 | 3.7 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 |
| Total | 291,701 | 13,001 | 4.5 | 3,890 | 1.3 | 178,459 | 6,227 | 3.5 | 2,345 | 1.3 | 146,248 | 8,399 | 5.7 | 3,587 | 2.5 |

The sample comprises all firm-year observations in Worldscope and Global Vantage from countries with at least 20 observations and with total assets available in a particular year. The hand-coded classification is based on 27,589 observations from firms that Worldscope or Global Vantage identify as potential IFRS/U.S. GAAP adopters and where we were able to collect annual reports through Thomson Research. The table reports the total number of firm-years and the number and percent of IFRS or U.S. GAAP observations, using the accounting standards classifications outlined in Table A1. We compute the percentage values for the hand-coded sample based on all firms that are uniformly classified as reporting under local GAAP by Worldscope *and* Global Vantage.